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AMERICAN CITY & COUNTY

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New York Dynamo Carol Bellamy

AC&C 1985 Survey: The Readers Speak

The Systems Approach To Managing Computers

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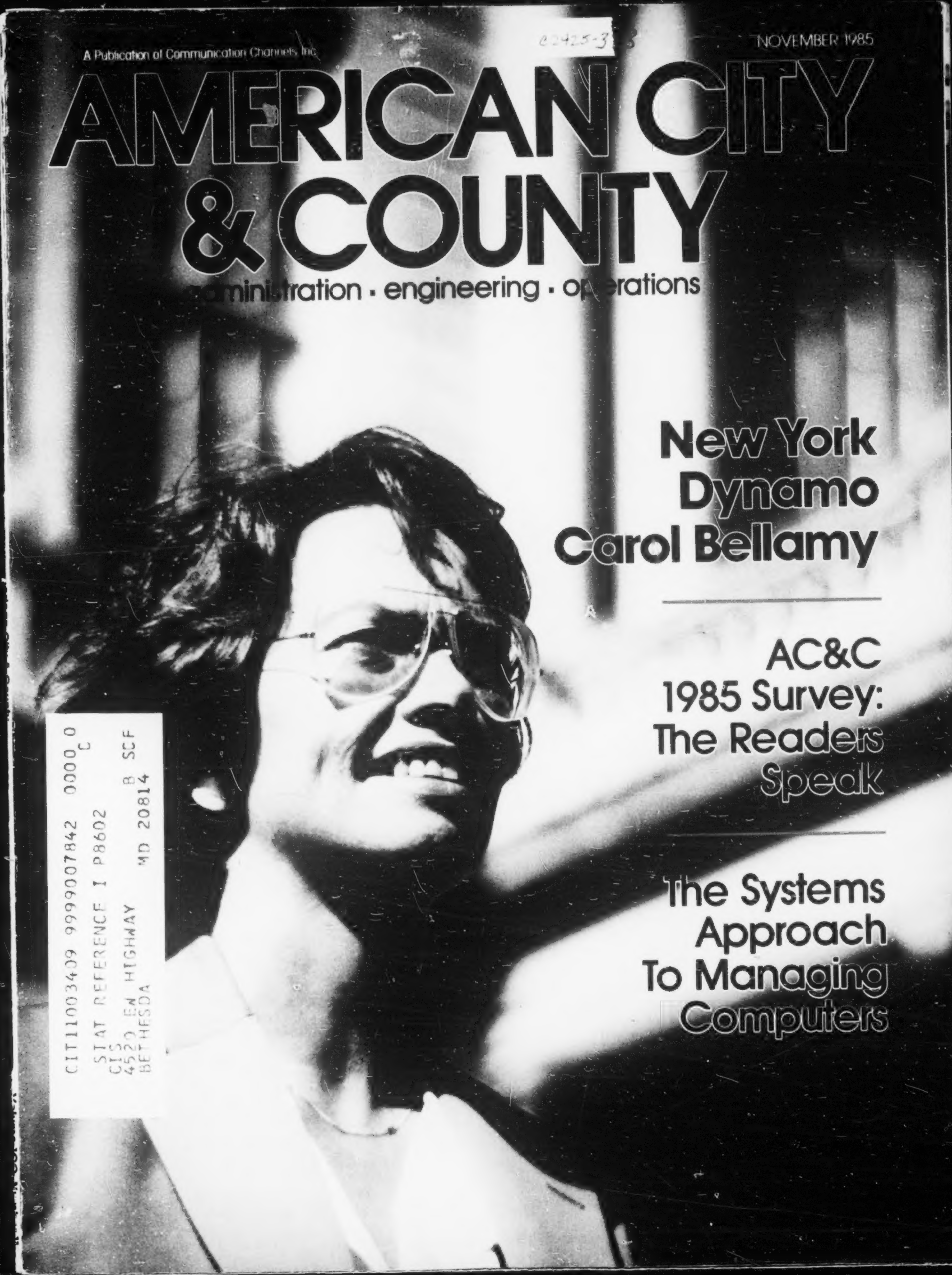

AMERICAN CITY & COUNTY

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November 1985

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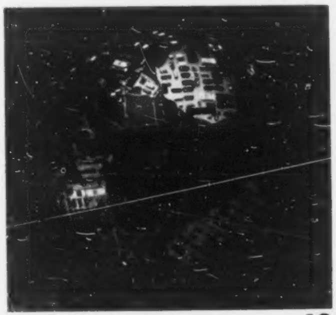

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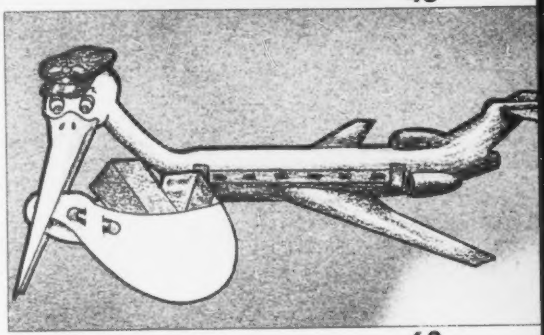

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About the Cover

As president of the City Council of New York City, Carol Bellamy has the largest constituency of any woman in local government. In this month's "Profile of a Leader" on page 42, she discusses the challenges and needs of city and county officials. (Photo by Thomas Toma of New York City)

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Survey Spotlights Tax Reform Plan

Eliminating local and state tax deductibility and cutting federal spending for domestic programs are prime concerns expressed in *American City & County's* annual survey of local public officials.

By Harriet Trevas, Editorial Assistant

"It's double taxation." "It's taxation on taxes." "It's a ravishing of city and state revenues." "It" is President Reagan's proposal in his current tax reform package to eliminate the deduction for state and local taxes, and "it" is the question receiving the strongest response in *American City & County's* 1985 "Survey of Issues and Trends."

The survey on topics of concern to local governments was sent to a random sample of 1,000 high-level public officials; 269 mayors, city and county managers, and other top administrators from all over the country responded, with by far the greatest number responding from the Midwest (37.3 percent), followed by the Southeast (14.9 percent). Based on size, cities and counties with populations of fewer than 10,000 registered the greatest response.

Nearly 84 percent of the responses came from cities with fewer than 50,000 population, but no significant differences in opinion can be found based solely on population size. More differences are noted based on geographical location. The survey consists of nine questions about issues that have cropped up again and again during the last year — issues that have yet to be resolved and that have a significant impact on all Americans. Space was provided for comments, and many officials took the opportunity to express their views in strong, definitive terms.

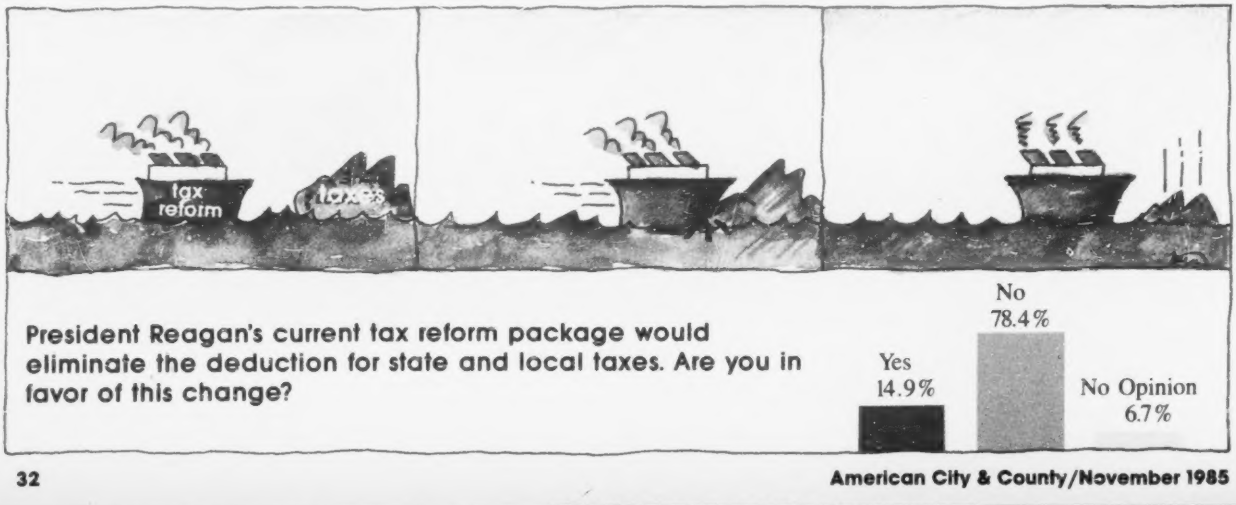
The greatest response was to the question of President Reagan's proposed elimination of the deduction for state and local taxes. A resounding "no" was voiced by more than 78 percent of the respondents, with only 14.9 percent answering "yes," and 6.7 percent with no opinion.

"More taxation will be coming for taxpayers on local levels as the federal government puts more responsibility locally. Taxpayers should not be penalized twice," says Mayor Stan Agler of Van Wert, Ohio.

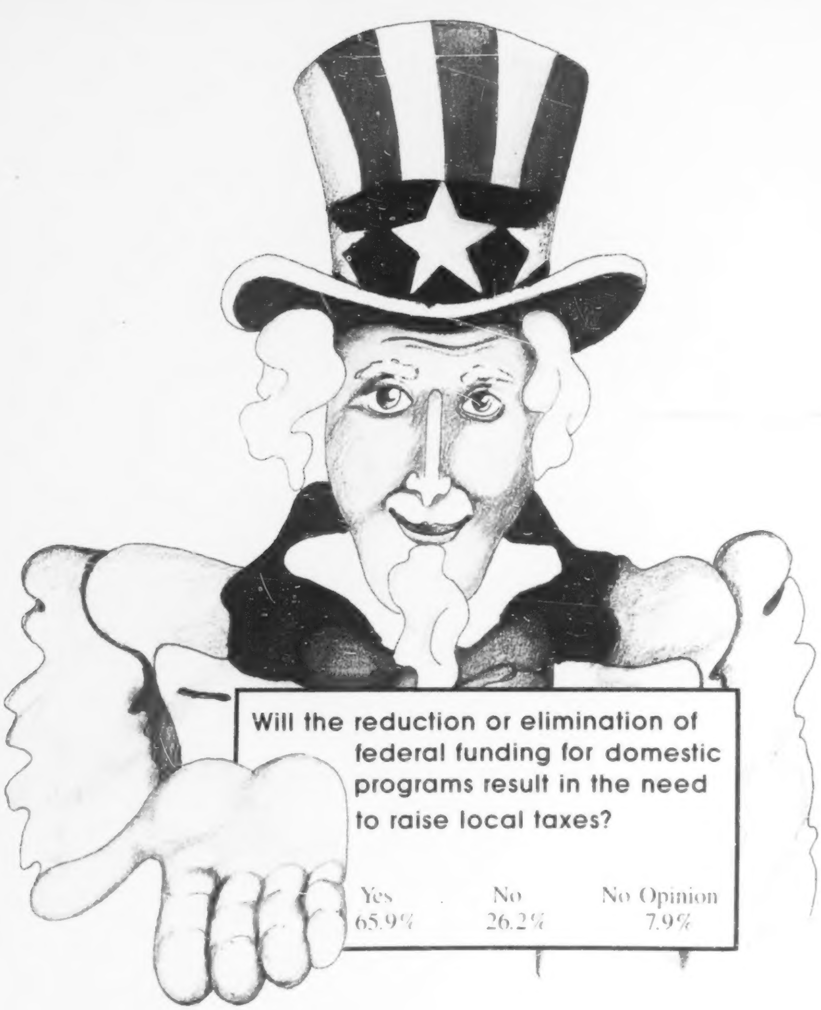
Richard J. Porth, assistant business administrator of Trenton, New Jersey, says the proposal would be "anathema to local and state governments and would make our tax system more regressive by shifting more burden on local and state taxes."

On the other hand, a few local officials see eliminating deductibility as a necessary step to reduce the federal deficit. David Robinson, mayor of Dyer, Tennessee, states, "This would amount to a tax increase, which could help reduce the deficit," although the president has denied that this is a revenue-enhancing measure.

However, the National League of Cities, which maintains that cities are



President Reagan's current tax reform package would eliminate the deduction for state and local taxes. Are you in favor of this change?



Will the reduction or elimination of federal funding for domestic programs result in the need to raise local taxes?

Yes	No	No Opinion
65.9%	26.2%	7.9%

being asked to bear the brunt of reductions in federal spending, says that any tax reforms that are implemented should be directly tied to reduction of the federal deficit. In the survey, with strong opposition from all geographical areas and at all population levels, some interesting differences still emerge. Unanimous opposition is expressed in the northeastern states, with a 37-0 vote against, and the closest vote was in the Southeast, with 12 in favor of the proposal and 25 against.

As might be expected, local government officials recommend that the federal deficit be reduced by cutting defense spending instead of domestic programs. Numerous fingers point at excessive waste at the federal level, particularly at the Pentagon.

Mayor James Cowles of Bay Village, Ohio, claims the defense budget is "like cancer, it keeps growing." Another mayor notes that as a member of the Army Reserve, he is able to observe much of the waste firsthand.

Obviously in reference to the highly publicized $400 hammers and $1,200 coffeepots, Mayor Robert E. Buchanan of Clarksville, Virginia, recommends, "Do away with the spending for items that are priced out of reason."

Mayor James Deane of Maple Grove, Minnesota, says, "Efforts must be made to end corrupt spending practices."

And city clerk Betty Dory of Anita, Iowa, says, "Waste in the armed forces and other places in government is out of hand." Many officials qualify their responses by emphasizing that they view national security as a priority, but that it would not be harmed by more prudent use of defense dollars. Some, like Anne Rudin, mayor of Sacramento, California, stress a "distinction between defense spending and military spending," and that it is military spending that should be reduced.

In the search for places to cut federal spending, foreign aid is a frequently mentioned target. Lorna Kesterson, mayor of Henderson, Nevada, replies bluntly: "Cut funding to other countries who do not appreciate it anyway."

Others agree. Bruce Cook, mayor of Middlefield, Ohio, says, "Cut back on financing the rest of the world and put money back into this great country."

And Susan Jacobs, city clerk of Peabody, Kansas, says, "The federal government need not spend so much money on foreign aid. We need to help ourselves first."

An across-the-board approach is suggested by many who say the deficit can be reduced simply by curtailing government waste and inefficiency and instituting better control and management practices. Mayor Gerald C. Lett of Angola, Indiana, urges the federal government to "get its act together to be able to work within available resources, as local governments must do."

Some public officials are more methodical. "Cut all programs 5 percent. Cut all subsidies that artificially keep up prices," advises Mayor Pete Chalos of Terre Haute, Indiana.

Mayor Robert E. Millett of Rock Island, Illinois, suggests that after attaining economy in government by eliminating "waste and duplication, by increasing government efficiency, we could substantially reduce the deficit. Then we could see if any other steps are needed."

City Manager D.K. Robinson of Silverton, Oregon, advises: "Reduce waste in existing programs; adopt across-the-board, hold-the-line budgets for two or three years. Give provisional authority to the president to line-item veto."

Others are quite willing to go along with reductions in domestic spending. Substantial revisions in Social Security and entitlement programs are urged. "The idea of Social Security as a right rather than as a need is no longer supportable," declares Karen P. Merrick, mayor of Guttenberg, Iowa.

One response chides *American City & County* for the wording of the question: "*You* assume domestic programs should not be the area of focus (for cuts). *We* do not," says N.L. Wolke, city administrator of Urbana, Ohio.

Mayor J.L. Tomlinson of Grand Blanc, Michigan, adds that he is "not in agreement with the premise in question. Congress has to 'bite the bullet' and get rid of the 'Great Society' programs."

And Mayor Ronald Gillham of Huntington Woods, Michigan, says, "*Every* program is a 'domestic' program, except foreign aid (which) should be a prime source for expenditure reduction. Stop crying and do something."

A large majority of survey respondents supports the concept of privatization — private-sector involvement in the financing, design, construction, ownership, operation and/or delivery of services traditionally provided by the government. Almost 75 percent of respondents favor this idea, with only 16.5 percent opposed, and 9 percent voicing no opinion.

"Private enterprise can usually provide the services cheaper and with more efficiency. Too many times, local governments are strangled by laws, paperwork, funding — just plain red tape!" states Peabody, Kansas, clerk Jacobs.

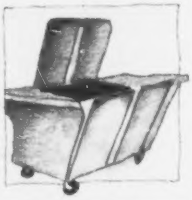
Stephen J. Daily, mayor of Kokomo, Indiana, notes, "Where the private sector can provide the same level of services as the public sector, privatization should be seriously considered."

After years of monopolizing certain services, the cost squeeze in which many local governments find themselves has made public officials more willing to step aside and let the private sector try providing these services — though not without reservations. One mayor fears the private sector would not undertake any venture unless a profit can be assured. As Mayor Chalos points out, the reason government initially got involved was because "the private sector showed it couldn't or wouldn't do it."

Can the private sector be expected to provide:

Public transportation?

Yes	No	No Opinion
57.7%	29.6%	12.7%

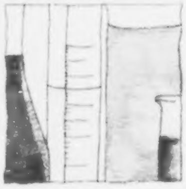


Waste collection & disposal?

Yes	No	No Opinion
73.0%	21.4%	5.6%

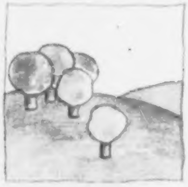
Water supply?

Yes	No	No Opinion
36.3%	51.3%	12.4%



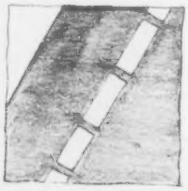
Wastewater treatment & collection?

Yes	No	No Opinion
37.8%	49.1%	13.1%



Parks & recreation services?

Yes	No	No Opinion
31.5%	56.6%	12.0%



Street maintenance?

Yes	No	No Opinion
39.0%	49.4%	11.6%

Health & human services?

Yes	No	No Opinion
50.6%	35.6%	13.9%

Others are concerned that turning over their responsibilities to private enterprise would leave the public "at their mercy," and cautioned that the private sector "tends to get greedy." They say the government would be abdicating its basic responsibilities to the public by allowing others to perform certain services.

Some, like Sacramento Mayor Rudin, are skeptical even in these times of tight budgets and limited resources. "There is little evidence," she notes, "that over the long haul, the private sector does it better or less expensively. Initial promises are always generous, but cost-cutting later may result in lower quality of service."

> ***"Where the private sector can provide the same level of services as the public sector, privatization should be seriously considered."***

Mayor Sonja Margerum of West Lafayette, Indiana, is willing to let private enterprise take over "in a limited way." But, she warns, "It's not always cheaper or better." She also insists that government maintain its control of these services, setting standards and assuring that poorer citizens continue to receive reliable service.

Mayor A.H. McCluskey of Caldwell, Idaho, says private enterprise should take over "only when *obviously* cost-effective," but other respondents stress that factors other than cost should be considered before transferring traditional governmental functions. Such factors as quality, dependability, good management and financial soundness are mentioned, as well as compassion and the human factor involved. Several officials prefer that local governments simply be given the flexibility to operate more efficiently so that they can continue to provide these services, but they admit that circumstances will force them toward privatization.

Nevertheless, many local officials express disenchantment with the way government functions and are enthusiastic about transferring as many activities as feasible. While cost is the primary incentive, the delays and excesses caused by extensive regulatory requirements and political obstacles also encourage the move toward privatization.

Moreover, the current federal atmosphere lends itself to an easing of the strains between the public and private sectors. Instead of the traditional public-versus-private antagonism, federal emphasis represents an attempt to bring these protagonists together in a mutually beneficial working relationship.

> *"The federal government should get its act together and ... work within available resources, as local governments must do."*

In addition to cost savings, privatization offers many advantages to the public, say Harvey Goldman and Sandra Mokuvos Bellush of Arthur Young & Co., authors of *The Privatization Book*. By shifting to private financing of major public works projects and thus minimizing federal and state involvement, local public officials gain greater freedom in decision-making and greater flexibility in operating their plants. Goldman and Bellush emphasize that privatization does not necessarily mean turning over the entire operation to a private organization, and a local government can provide and control many services without actually performing them. An example is a wastewater treatment plant built with private-sector financing in Loudon, Tennessee, in an impressively short time and at relatively low cost; because it could bypass federal procurement regulations and share the extensive tax benefits received, the private firm was able to charge lower user fees as well.

While the general concept of privatization receives widespread support from those polled — and a few are eager to privatize everything on the list — many disagree over specific services that should be transferred to the private sphere. Perhaps because it has been transferred with the most frequency and success, solid-waste collection and disposal are approved by 73 percent as the most acceptable area for private activity. The proven success of this function is cited as the basis for extending private participation to other governmental operations.

Conversely, the respondents are most

Commentary

Elimination of Deductibility Essential to Tax Reform

By J. Hugh Nichols

President Reagan's tax reform proposal is both essential and in the overall public interest. Though certain elements of the reform package could benefit from fine-tuning, the elimination of state and local tax deductibility is so integral that the proposal cannot survive if that aspect is substantially changed. The temptation is to consider only the elements that might hurt, while ignoring those that are beneficial.

As far as the deductibility of state and local taxes is concerned, the reasons for most objections are more imagined than real. Several points must be considered:

●Is the elimination of deductibility double taxation? No.

Thirty-four states, and the overwhelming majority of local governments, do not permit the deduction of federal taxes against local tax liabilities. Those who raise the issue of double taxation should look first at their own systems and throw no stones if guilty of taxing federal tax payments. In Maryland, both state and local governments do tax federal-income-tax payments. In other words, Maryland state and local governments do charge a "tax on a tax."

●Will the elimination of deductibility hurt the ability of state and local governments to raise revenues? No.

The reported increase in federal tax liability to constituents because of the elimination of state and local tax deductibility must be balanced with the decrease in federal tax liability because of the reduction in rate. There is no such thing as an average taxpayer, but proponents anticipate that approximately 79 percent of those paying taxes will realize a net reduction if the entire tax reform package is adopted. If tax reform leaves more money in the hands of constituents, how will state and local governments suffer in their ability to raise revenues? Taxes, instead of being hidden, will be in the open, and accountability will be more visible.

●Will the elimination of deductibility hurt local bond ratings? No.

Because state and local taxation would be more visible with the elimination of state and local tax deductibility, bond ratings supposedly will decline. This is a judgment call. Ratings analysts in New York question whether and to what degree local governments depend upon hidden revenues and revenues susceptible to the actions of other governmental bodies, especially state and federal governments. The severing of that dependency without loss of revenue base increases local government's ability to control its own revenues and should, therefore, improve its bond ratings.

●Will the elimination of deductibility hurt the delivery of basic public services, such as education, police and fire protection? No.

State and local governments will not directly lose revenue as a result of loss of deductibility. Further, since most federal taxpayers will enjoy a net gain in disposable income despite the elimination of deductibility, state and local governments will have an even greater ability to raise revenue for these services — as long as they are not afraid to be accountable.

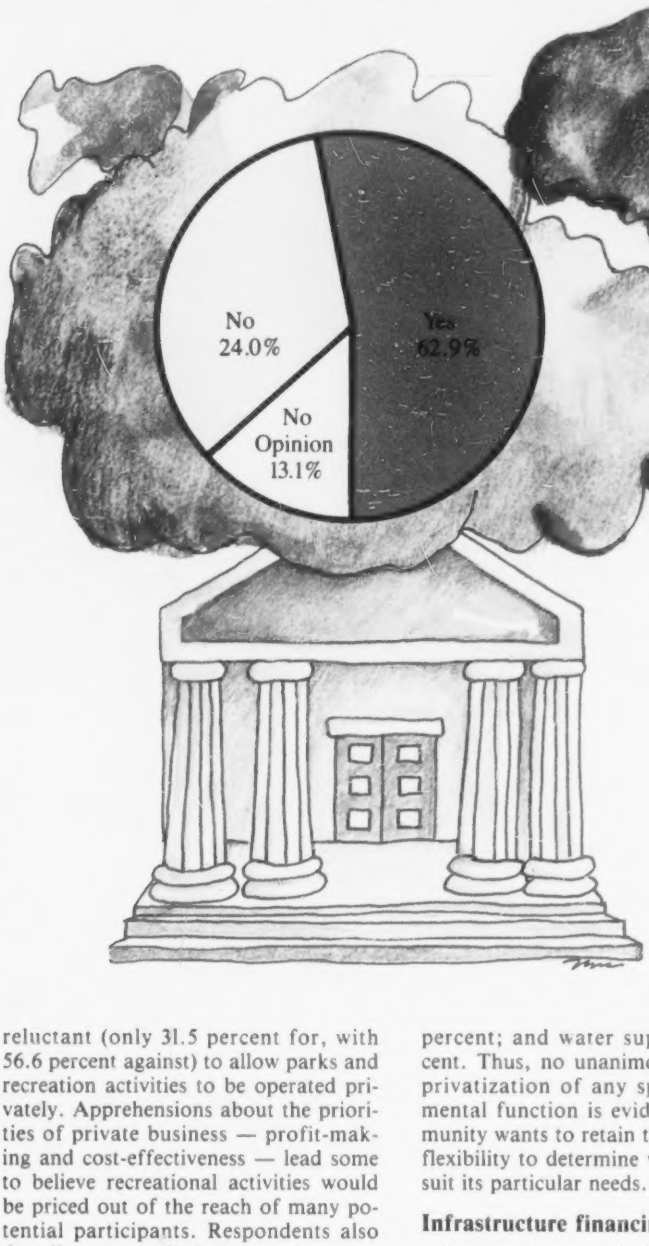
●Will the elimination of deductibility adversely affect home ownership — especially for lower-income persons? No.

Since the net increase in disposable income as a result of the tax reform proposal is significantly greater for lower-income persons, the opportunity to purchase a home is actually increased. For example, the reduction of federal taxes with deductibility may have been in the range of $100-$200 annually, while the tax reform proposal without deductibility may reduce federal taxes $300-$400 annually. Actual differences vary depending upon home value and local property-tax rates.

Public officials should weigh the advantages as well as the disadvantages of the tax reform proposal. On balance, the proposal is favorable in the long term because it brings a greater degree of fairness to the system. □

J. Hugh Nichols is county executive of Howard County, Md. This article is based on testimony he gave before the Maryland congressional delegation.

Do you favor the formation of a national infrastructure loan program to provide low interest loans for state and local governments?



reluctant (only 31.5 percent for, with 56.6 percent against) to allow parks and recreation activities to be operated privately. Apprehensions about the priorities of private business — profit-making and cost-effectiveness — lead some to believe recreational activities would be priced out of the reach of many potential participants. Respondents also describe as unrealistic expectations that these services can be operated as self-supporting enterprises.

As many as 50 percent of respondents favor the transfer of health and human service functions to private control, but 35 percent oppose it, and 13.9 percent have no opinion — the highest "no opinion" answer in the survey, possibly indicating that this area has not been mentioned frequently as a candidate for privatization.

Other activities listed in the survey for potential privatization are approved at the following rates: public transportation, 57.7 percent; street maintenance, 39 percent; wastewater treatment, 37.8 percent; and water supply, 36.3 percent. Thus, no unanimous support for privatization of any specific governmental function is evident; each community wants to retain the freedom and flexibility to determine which ones best suit its particular needs.

Infrastructure financing

Last year's survey indicated that local government's highest priority was the renewal and maintenance of the infrastructure, defined by economist Pat Choate as "the critical public works that underpin the American economy and provide most community services." This year, however, the focus is on funding in general, with particular emphasis on the adequacy of revenues to sustain basic operations. "Deficit" may have replaced "infrastructure" as the buzzword of the year, but the infrastructure problem has not moved much closer to resolution.

Since the problem was brought to public attention at the beginning of the decade, a number of measures have been proposed at both the federal and state levels. For a variety of reasons, however, few have actually been passed and implemented. The National Infrastructure Act, which would provide $3 billion a year in interest-free loans to state and local governments, was introduced by Rep. James Howard of New Jersey almost two years ago, but has yet to get beyond the hearing stage. Almost 63 percent of respondents in the survey support this program or some similar version. Mayor Wilce Cooke of Benton Harbor, Michigan, predicts: "Infrastructure repair will be the salient national problem of the 1990s."

Strong support is expressed everywhere except the Southwest, where a two-to-one majority is registered against the concept of federally established infrastructure banks. Many of those from the rest of the country who express opposition to the program say they are afraid that the Southwest would be favored over other regions to receive these loans.

Although infrastructure improvement has been mentioned as an ideal place for implementation of the public/private partnership concept, many local governments are totally without resources even to initiate undertakings of such magnitude. This is especially true in smaller, older communities where the need is often most acute but where even a loan program may not be adequate to meet the need. Casting a vote in favor of the program is Mayor Earl Wintle of Red Bluff, California, who, however, adds that "loans need repayment, which is difficult."

Authorities on all points of the political and economic spectrum maintain this is an area where federal responsibility and participation cannot be denied. The National Infrastructure Advisory Committee to the Joint Economic Committee of Congress, comprised of highly placed members of the public and private communities, concludes that the problem "requires state and local governments to continue to assume primary management and funding responsibilities," and that "long-term response and commitment by the federal government" are necessary.

Another group, the U.S. Special Private Sector Advisory Panel of the Senate Budget Committee on Infrastructure Financing, urges revisions in the tax structure to encourage private investment in infrastructure financing, but points out, "Financial resources for infrastructure investment will be generated more easily if public expenditures leverage private spending."

Survey objections to the establishment of a national infrastructure loan program are based primarily on the view that the federal government should not undertake more new programs now,

FEDERAL FUNDING
USER FEES

Can increased dependence on user fees offset the proposed cuts in federal funding for domestic programs?

Yes	No	No Opinion
37.5%	50.9%	11.6%

and concern that it would develop into just one more bureaucracy to harass local governments.

Almost 66 percent of respondents nationwide say they will have to raise local taxes to make up for federal losses. But in the West, where California is precluded by state law from increasing local taxes, only 50 percent indicate they will have to seek local tax increases. Several other states face situations similar to that of California. G. Roland Williams, village administrator of Groveport, Ohio, notes that his municipality will not have to raise taxes "only because our industrial and commercial development is growing considerably."

Another tax reform proposal by the Reagan administration would limit the tax advantages of industrial revenue bonds, which are designed to encourage investment in private development projects to create jobs and stimulate the local economies. Of those surveyed, 67.4 percent claim this proposal would limit the growth potential of their municipalities. As Mayor Cooke explains, "Cities would lose their leverage of tax incentives to entice business to locate in their areas or to retain businesses."

Mayor Ted Reed of Victoria, Texas, points out that when tax advantages are limited, municipalities "will have to pay higher interest (rates) ... to attract buyers (for their bonds)."

Increasing user fees for various local services cannot offset proposed cuts in federal funding, state more than 50 percent of survey respondents. In order to cover the cost of rendering these services without federal subsidy, the fees would have to be so high as to price many users out of the market. Others insist user fees are just another tax in a different form. User fees "would be a disservice to the citizens who would still have to pay the bill," remarks James A. Brundahl, mayor of Wauwatosa, Wisconsin.

Kokomo Mayor Daily explains, "User fees for services formerly provided by federal revenues ... still force the constituent to pay more for local services while seeing less and less value returned for federal tax dollars."

However, as many as 37.5 percent say raising user fees can be an effective way to maintain service, and 11.6 percent have no opinion.

A total of 61 percent of those surveyed agree that local governments should provide "comparable worth" pay scales for male and female dominated jobs requiring comparable skills. That is, they favor comparable worth pay in principle, but almost everyone has doubts about the methods and effects of implementation. Oscar Brownell, mayor of Seal Beach, California, supports the concept, but points out, "Application of this principle creates too many disrupting disputes. How do you determine 'comparable skills' that are acceptable to all?"

But Mayor John T. Craig of Grand Rapids, Minnesota, says his city is preparing a comparable worth plan for implementation in 1986.

Many of the survey's responses reflect the confusion that prevails when "comparable worth" is mentioned. Typical comments include: "Pay scales are set by the job now"; "why would anyone want to pay more than the agreed-upon price?"; "the marketplace should determine the pay scales for all"; "equal pay for equal work seems fair"; "if a job can be done by either sex, the pay should be the same." One official opposing "comparable worth" nevertheless adds, "Pay should be based on effort, skills and talent required. Sex should be ignored."

Balancing the local budget has always been a concern of local public officials, but in this "year of the deficit" — when the total withdrawal of federal revenue sharing is a reality that must be faced, when some kind of tax reform measures affecting cities are inevitable, when spending for all domestic programs is being slashed — local officials are avidly seeking ways to make the most of whatever resources they have. Privatization, user fees, increased taxes, volunteerism and other methods are being explored as the federal government attempts to extricate itself from local involvement.

Although many of those surveyed express a certain amount of satisfaction at getting the federal government out of local affairs, most recognize that the federal government cannot completely turn its back on the local governments that form the foundation of this country. Public/private partnerships may be an idea whose time has come, but the task is too massive to allow the federal/local partnership to dissolve, they say. Again and again, survey respondents voice the conclusion that federal involvement at some level — albeit reduced — must be continued if the local municipalities of this country — large and small, old and new, affluent and impoverished — are to survive and flourish into the 21st century. ☐

MUNICIPAL COST INDEXES

The **Municipal Cost Index** fell 0.3 percent to 336.0, due to marked declines of nearly two points each for the **Construction Cost Index** and **Producer Price Index**.

The **Consumer Price Index**, which has been climbing steadily since March, once again moves up — by 0.2 percent to 323.5, or 3.4 percent for the year. In this month's marketbasket, flow instruments increased by a whopping 134 percent for the month to 232.5. Other commodities displaying sizable increases are glass, residual fuel and industrial chemicals. Conversely, lumber, gasoline, LP gas and diesel fuel all decreased significantly. □

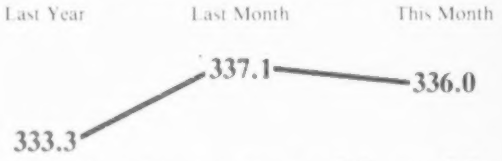
—Terri Stone

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	147.5	0.1	1.9
Apparel	183.6	0.4	3.2
Asphalt Roofing	408.3	−0.8	0.0
Books	132.8	0.4	4.2
Chemicals, Industrial	340.7	1.1	−0.1
Coal	546.7	0.0	−0.6
Concrete Products	322.7	0.5	3.7
Construction Machinery	362.5	0.1	1.6
Diesel Fuel	592.2	−2.4	−12.4
Electric Components	197.6	0.1	1.7
Electric Lamps	344.6	0.1	4.0
Electric Power	463.7	−0.3	1.5
Engines, I.C.	347.2	0.0	3.0
Fans, Blowers	359.7	0.0	2.4
Fertilizers, Mixed	259.6	0.4	−2.9
Floor Coverings	191.4	0.1	−0.6
Flow Instruments	232.5	134	N/A
Footwear	258.5	0.5	3.0
Foundry Products	364.3	0.2	0.4
Fuel Oil No. 2	604.2	−0.8	−14.1
Furniture	309.3	0.2	3.7
Gasoline	575.2	−2.2	3.8
Generator Sets	351.2	−0.2	3.2
Glass	226.4	1.6	3.1
Glass Containers	381.5	0.8	4.2
Gypsum Products	338.1	−0.1	−6.0
Hardware	306.1	0.3	2.7
Heating Equipment	261.1	0.2	2.2
HVAC Controls	125.9	−1.2	0.5
LP Gas	508.1	−2.4	−13.1
Lubricants	369.3	0.3	0.2
Lumber	342.4	−3.5	N/A
Metal Fabrications	315.1	0.2	0.9
Millwork	313.9	0.0	2.2
Motor Vehicle Parts	356.7	0.6	0.8
Mowers	261.5	−0.1	0.7
Natural Gas	1363.2	−1.4	−6.6
Office Machines	154.9	0.0	0.8
Paint	277.1	−0.5	0.3
Paper	303.7	−0.1	−1.1
Passenger Cars	227.9	0.4	3.5
Plumbing Fixtures	313.5	0.1	2.9
Plywood	237.8	0.1	−3.3
Portland Cement	361.1	−0.3	1.5
Residual Fuel	930.2	3.3	−17.3
Sand, Gravel	311.0	0.4	4.6
Sanitary Papers	380.1	0.9	3.5
Soaps, Detergents	274.6	0.4	2.7
Sporting Goods	202.7	0.0	−1.1
Steel Mill Products	365.7	−0.1	−0.7
Struc. Clay Products	296.8	0.3	3.0
Switchgear	278.0	0.1	−0.1
Tires, Tubes	236.7	−0.7	−2.9
Transformers	232.3	0.5	1.3
Trucks	333.3	0.0	0.7
Valves	104.9	0.0	2.2
Wire, Cable	205.5	0.7	1.6
Wiring Devices	361.7	0.2	1.6

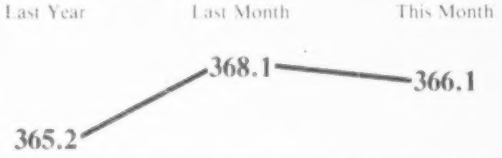
At-A-Glance Changes

MUNICIPAL COST INDEX



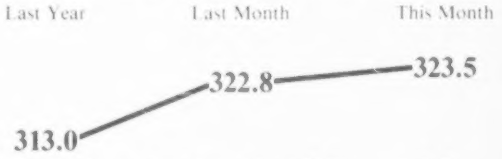
Percent Change From Last: Month **−0.3** Year **0.8**

CONSTRUCTION COST INDEX



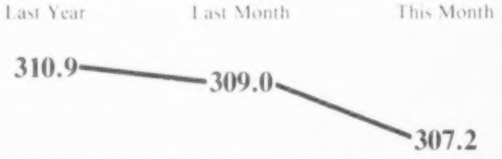
Percent Change From Last: Month **−0.5** Year **0.2**

CONSUMER PRICE INDEX (BLS)



Percent Change From Last: Month **0.2** Year **3.4**

PRODUCER PRICE INDEX (BLS)



Percent Change From Last: Month **−0.6** Year **−1.2**

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year
Receipts	557.9B	2.3	7.2
Federal Grants	98.1B	3.2	5.3
Durable Purchases	14.7B	1.4	5.8
Consumables	38.2B	1.9	7.6
Services	375.0B	2.1	8.4
Structures	44.1B	−3.5	6.5
Salaries, Wages	273.3B	2.6	7.8
Surplus	50.6B	−5.8	−7.2
Employment	13.374M	0.4	1.7

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A Publication of Communication Channels Inc.

DECEMBER 1985

AMERICAN CITY & COUNTY

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Taming Telecom For City Hall

1985 Awards of Merit

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December 1985

Vol. 100, No. 12

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New systems can read water meters, adjust traffic lights and possibly save lives — but equipment and vendor choices are not easy.

28 Rural America's Cable Television Crisis
Small towns and rural areas are clamoring for better cable service and for a wider variety of stations.

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As the world continues to shrink, city and county leaders must cope with the same human and physical resource problems.

34 ☐ Better Decisions for Public Works

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36 ☐ Top Management Key To Success

40 New Federalism Causing County and State Tensions
Utah county commissioner says counties are in need of broader authority and revenue-raising abilities.

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Communities are trying innovative methods to provide local services in the wake of fiscal belt-tightening at the federal level.

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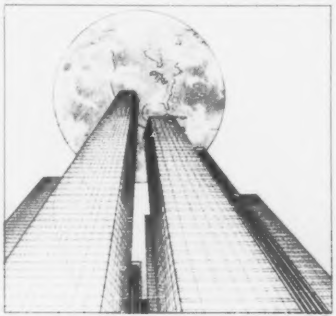

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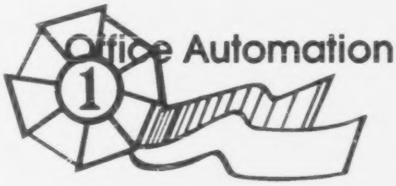

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About the Cover

Telephone system technology is enhancing the productivity and effectiveness of local governments, while providing better services to citizens. The cover story beginning on page 22 explains how. (Photograph by Neil Copeland of Atlanta.)

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MUNICIPAL COST INDEXES

The **Municipal Cost Index** for December leveled at 336.0 for the second month, dropping from a yearly high of 337.4 in September.

The **Construction Cost Index** rose slightly by 0.1 percent to 366.3, up from a one-point decrease in October and a two-point drop in November. Also higher is the **Consumer Price Index**, which shows a 0.3 percent gain for the month, while the **Producer Price Index** continues to decline — down 0.5 percent for December and 1.2 percent compared to 1984.

Products in the fuel and oil family showed, by far, the biggest increases in this month's marketbasket. Fuel oil no. 2 reported a 10.7 percent jump, while diesel fuel had a substantial 5.9 gain. ☐

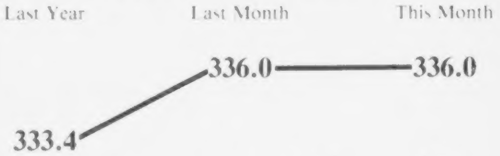
— Terri Stone

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	147.6	0.1	2.0
Apparel	184.3	0.4	2.2
Asphalt Roofing	406.3	−0.5	−0.4
Books	133.8	0.8	4.7
Chemicals, Industrial	339.5	−0.4	0.5
Coal	551.1	0.8	0.4
Concrete Products	323.3	0.2	3.7
Construction Machinery	362.8	1.6	0.1
Diesel Fuel	627.2	5.9	−5.0
Electric Components	197.4	−0.1	1.0
Electric Lamps	346.9	0.7	4.5
Electric Power	462.4	−0.3	1.3
Engines, I.C.	348.4	0.3	2.7
Fans, Blowers	359.7	0.0	2.3
Fertilizers, Mixed	258.2	−0.5	−2.5
Floor Coverings	191.9	0.3	−0.3
Flow Instruments	232.3	−0.1	N/A
Footwear	259.3	0.3	2.9
Foundry Products	364.1	−0.1	0.2
Fuel Oil No. 2	668.7	10.7	−2.4
Furniture	311.6	0.7	4.7
Gasoline	562.4	−2.2	2.3
Generator Sets	351.6	0.1	3.4
Glass	225.5	−0.4	2.6
Glass Containers	386.9	1.4	6.1
Gypsum Products	329.6	−2.5	−7.3
Hardware	305.7	−0.1	2.2
Heating Equipment	261.5	0.2	2.3
HVAC Controls	126.5	0.5	0.7
LP Gas	523.2	3.0	−12.0
Lubricants	368.4	−0.2	−0.2
Lumber	332.4	−2.9	N/A
Metal Fabrications	315.1	0.0	1.0
Millwork	313.3	−0.2	1.9
Motor Vehicle Parts	356.1	−0.2	0.6
Mowers	261.5	0.0	0.6
Natural Gas	1370.0	0.5	−4.2
Office Machines	154.9	0.0	0.8
Paint	276.8	−0.1	−0.1
Paper	303.3	−0.1	−1.1
Passenger Cars	209.5	−8.1	−1.3
Plumbing Fixtures	313.6	0.0	3.0
Plywood	230.1	−3.2	−5.5
Portland Cement	358.4	−0.7	1.2
Residual Fuel	932.4	0.2	−16.0
Sand, Gravel	309.8	−0.4	3.9
Sanitary Papers	380.3	0.1	3.4
Soaps, Detergents	274.8	0.1	3.3
Sporting Goods	203.5	0.4	−1.2
Steel Mill Products	365.6	0.0	−0.7
Struc. Clay Products	297.0	0.1	2.6
Switchgear	278.0	0.0	0.1
Tires, Tubes	236.6	0.0	−3.1
Transformers	231.8	−0.2	1.4
Trucks	316.7	−5.0	−3.4
Valves	105.1	0.2	2.3
Wire, Cable	205.6	0.0	1.9
Wiring Devices	361.7	0.0	1.3

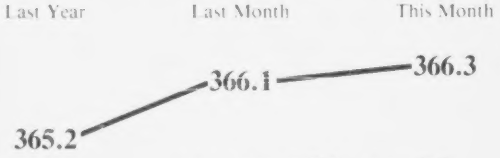
At-A-Glance Changes

MUNICIPAL COST INDEX



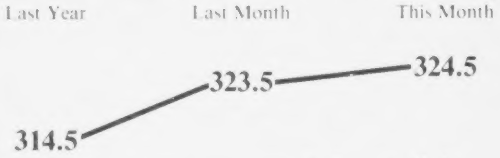
Percent Change From Last: Month **0.0** Year **0.8**

CONSTRUCTION COST INDEX



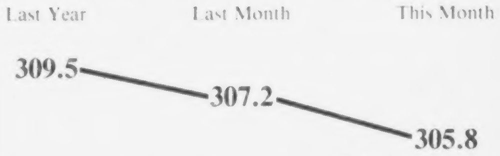
Percent Change From Last: Month **0.1** Year **0.3**

CONSUMER PRICE INDEX (BLS)



Percent Change From Last: Month **0.3** Year **3.2**

PRODUCER PRICE INDEX (BLS)



Percent Change From Last: Month **−0.5** Year **−1.2**

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year:
Receipts	558.0B	2.3	7.2
Federal Grants	98.1B	3.2	5.3
Durable Purchases	15.0B	2.0	7.1
Consumables	39.1B	2.4	7.7
Services	382.5B	2.0	8.4
Structures	50.1B	13.6	13.3
Salaries, Wages	278.3B	1.8	7.7
Surplus	50.3B	−6.3	−7.7
Employment	13.451M	−0.2	1.9

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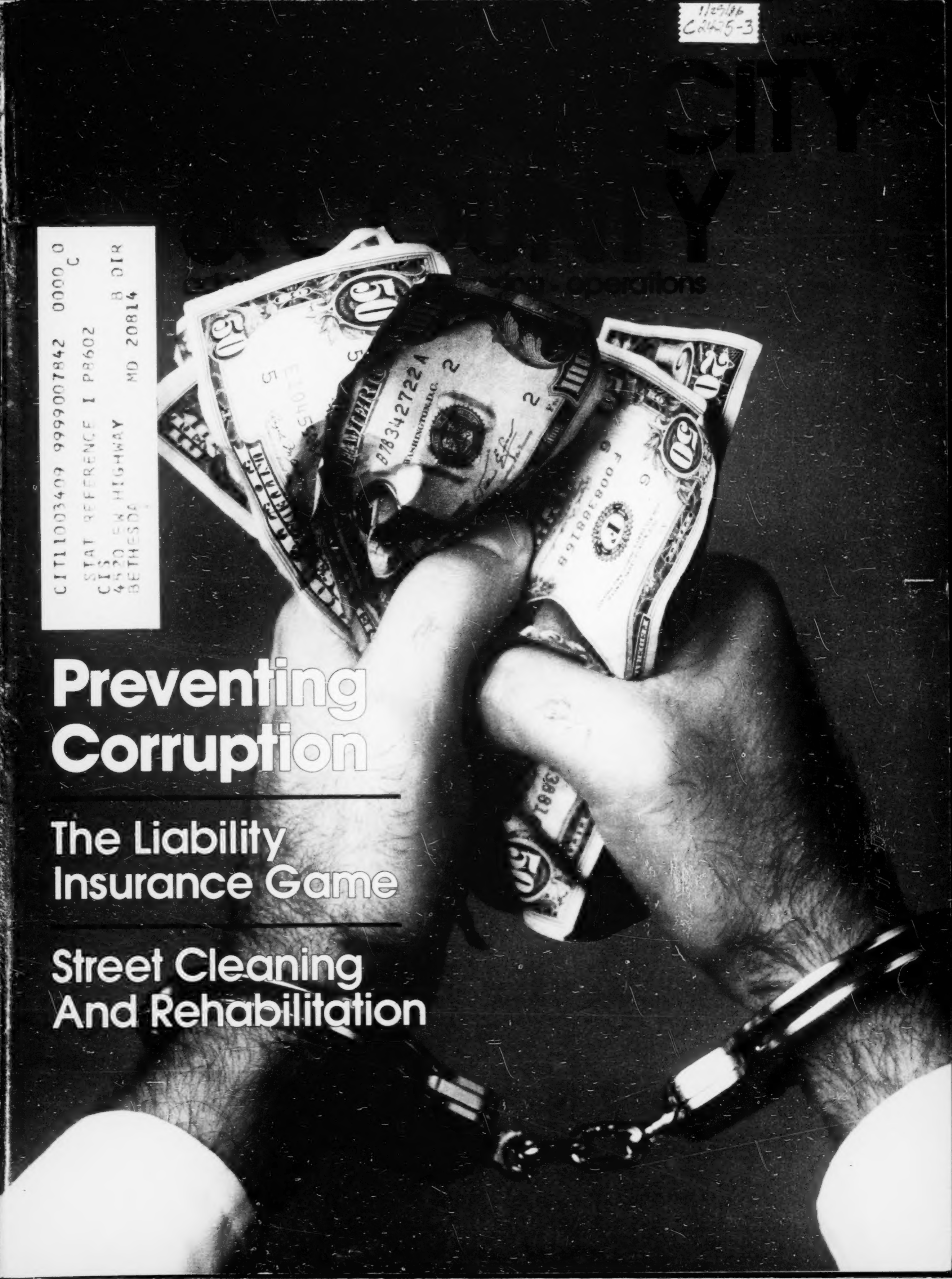

Preventing Corruption

The Liability Insurance Game

Street Cleaning And Rehabilitation

A Publication of Communication Channels, Inc

AMERICAN CITY & COUNTY

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JANUARY 1986

Vol. 101, No. 1

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About the Cover

Unethical behavior has been a problem of local government operations for centuries. With today's expansive media visibility, officials need to be alert to prevent even a hint of corruption in their communities. The cover story beginning on page 24 discusses possible solutions. (Photograph by Bryant McAfee of Atlanta.)

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MUNICIPAL COST INDEXES

After a one-month standstill, the **Municipal Cost Index** again is climbing — up to 337.1, representing a rise of 0.3 percent for the month and 1.1 percent for the year. This push upward is caused by steady inclines in both the **Construction Cost Index** and the **Consumer Price Index**.

The **Producer Price Index** has reversed its falling trend occurring since September by reporting a 0.7 percent increase to 308.0 for January.

Commercial vehicles and the fuel to run them were products in this month's marketbasket that rose significantly. Posting the largest increases were passenger cars, followed by trucks and diesel fuel. No deep dips were recorded, though floor coverings, lumber and electric power were among those products that declined by more than 1 percent. □

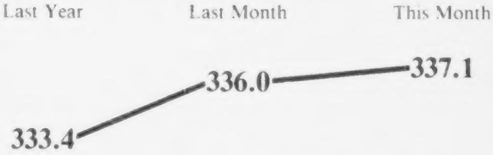
— Terri Stone

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	147.4	−0.1	2.1
Apparel	183.8	−0.3	2.3
Asphalt Roofing	404.1	−0.5	−1.2
Books	135.2	1.0	4.6
Chemicals, Industrial	337.9	−0.5	0.6
Coal	547.0	−0.7	−0.3
Concrete Products	323.2	0.0	3.6
Construction Machinery	363.1	0.1	1.6
Diesel Fuel	658.6	5.0	−1.2
Electric Components	197.7	0.2	0.9
Electric Lamps	348.0	0.3	3.2
Electric Power	455.9	−1.4	2.4
Engines, I.C.	346.9	−0.4	2.8
Fans, Blowers	359.7	0.0	2.3
Fertilizers, Mixed	257.2	−0.4	−2.6
Floor Coverings	188.7	−1.7	−2.2
Flow Instruments	233.0	0.3	N/A
Footwear	259.6	0.1	3.0
Foundry Products	364.0	0.0	0.5
Fuel Oil No. 2	705.7	5.5	0.4
Furniture	311.2	−0.1	4.7
Gasoline	554.0	−1.5	−1.1
Generator Sets	351.7	0.0	2.7
Glass	228.4	1.3	3.9
Glass Containers	387.1	0.1	6.1
Gypsum Products	339.6	3.0	0.2
Hardware	306.5	0.3	2.2
Heating Equipment	261.5	0.0	2.1
HVAC Controls	126.2	−0.2	0.9
LP Gas	536.6	2.6	−13.2
Lubricants	375.9	2.0	1.8
Lumber	328.2	−1.3	N/A
Metal Fabrications	315.5	0.1	0.5
Millwork	312.5	−0.3	1.8
Motor Vehicle Parts	356.6	0.1	1.0
Mowers	261.9	0.2	0.7
Natural Gas	1356.2	−1.0	−4.9
Office Machines	154.2	−0.5	0.3
Paint	277.6	0.3	−0.1
Paper	301.4	−0.6	−1.7
Passenger Cars	234.8	12.1	4.9
Plumbing Fixtures	314.8	0.4	2.8
Plywood	234.8	1.8	−2.5
Portland Cement	357.9	−0.1	1.3
Residual Fuel	924.5	−0.8	−17.0
Sand, Gravel	310.3	0.2	4.2
Sanitary Papers	381.9	0.4	3.6
Soaps, Detergents	275.7	0.3	2.6
Sporting Goods	203.6	0.0	−1.2
Steel Mill Products	365.7	0.0	−0.8
Struc. Clay Products	299.6	0.9	3.5
Switchgear	278.5	0.2	0.0
Tires, Tubes	236.2	−0.2	−1.3
Transformers	231.5	−0.1	1.2
Trucks	337.6	6.6	2.0
Valves	104.8	−0.3	1.9
Wire, Cable	205.3	−0.1	2.2
Wiring Devices	360.7	−0.3	1.0

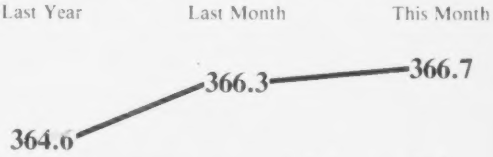
At-A-Glance Changes

MUNICIPAL COST INDEX



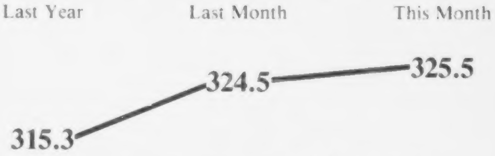
Percent Change From Last: Month **0.3** Year **1.1**

CONSTRUCTION COST INDEX



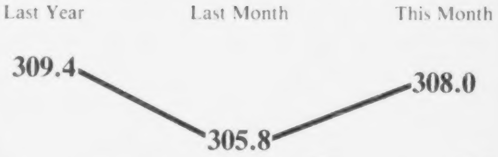
Percent Change From Last: Month **0.1** Year **0.6**

CONSUMER PRICE INDEX (BLS)



Percent Change From Last: Month **0.3** Year **3.2**

PRODUCER PRICE INDEX (BLS)



Percent Change From Last: Month **0.7** Year **−0.5**

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year:
Receipts	558.0B	2.3	7.2
Federal Grants	98.1B	3.2	5.3
Durable Purchases	15.0B	2.0	7.1
Consumables	39.1B	2.4	7.7
Services	382.5B	2.0	8.4
Structures	50.1B	13.6	13.3
Salaries, Wages	278.3B	1.8	7.7
Surplus	50.3B	−6.3	−7.7
Employment	13.460M	0.0	2.0

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FEBRUARY 1986

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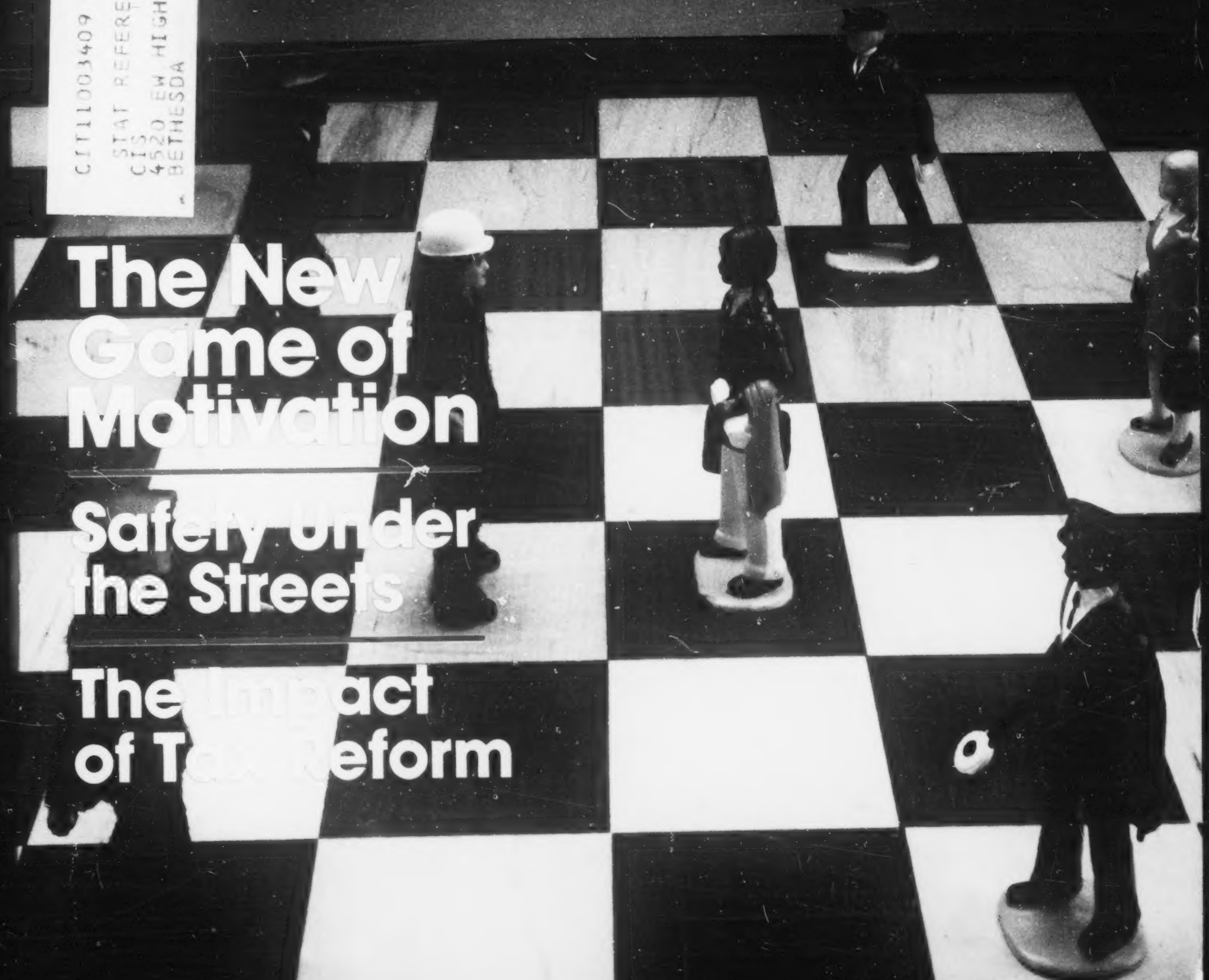

The New Game of Motivation

Safety Under the Streets

The Impact of Tax Reform

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February 1986

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About the Cover

As described beginning on page 36, today's "New Game of Motivation" involves players from two distinct types of backgrounds, and requires new strategies to get the greatest productivity and efficiency from employees. (Photo by Neil Copeland of Atlanta.)

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ISSN 0149-337X

MUNICIPAL COST INDEXES

All indexes for February show increases, with only the *Producer Price Index* reporting a drop from this time last year. Rising by the smallest margin — 0.2 percent — is the *Construction Cost Index*, which rose to 367.5. Slightly higher is the *Consumer Price Index*, increasing by 0.3 percent, while the *Producer Price Index* rose most significantly — by 0.6 percent to 309.7.

Still the biggest gainer in this month's marketbasket is the fuel family, composed of diesel fuel, fuel oil no. 2, gasoline and LP gas. Also rising by at least a point were gypsum products and switchgear. As for declines, books had no competition, dropping 7 percent. ☐

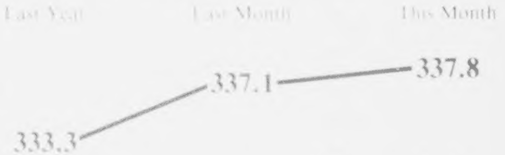
— *Terri Stone*

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	147.5	0.1	1.9
Apparel	183.2	−0.3	1.6
Asphalt Roofing	408.7	−1.1	−0.3
Books	136.1	−7.0	4.9
Chemicals, Industrial	335.4	−0.7	0.2
Coal	541.2	−1.1	−1.3
Concrete Products	324.0	0.2	3.9
Construction Machinery	363.5	0.1	1.6
Diesel Fuel	690.9	4.9	1.8
Electric Components	197.8	0.1	0.4
Electric Lamps	347.8	−0.1	2.9
Electric Power	453.2	−0.6	2.3
Engines, I.C.	346.8	0.0	2.6
Fans, Blowers	359.7	0.0	2.3
Fertilizers, Mixed	257.4	0.1	−2.5
Floor Coverings	188.5	−0.1	−2.3
Flow Instruments	233.0	0.0	1.0
Footwear	259.2	−0.2	2.7
Foundry Products	364.0	−0.1	0.2
Fuel Oil No. 2	748.7	6.1	4.8
Furniture	311.3	0.0	3.5
Gasoline	568.2	2.6	0.9
Generator Sets	351.1	−0.2	2.6
Glass	229.1	0.3	4.9
Glass Containers	387.1	0.0	6.3
Gypsum Products	349.5	2.9	4.5
Hardware	307.3	0.3	2.5
Heating Equipment	261.5	−0.1	2.1
HVAC Controls	127.2	0.8	2.4
LP Gas	569.1	6.1	−8.9
Lubricants	366.5	−2.5	−0.8
Lumber	323.2	−2.9	N/A
Metal Fabrications	315.4	0.0	0.9
Millwork	312.2	−0.1	0.9
Motor Vehicle Parts	356.5	0.0	0.9
Mowers	262.1	0.1	0.8
Natural Gas	1351.3	−0.4	−5.0
Office Machines	154.1	−0.1	0.2
Paint	330.9	−1.0	−1.0
Paper	301.0	−0.1	−1.9
Passenger Cars	234.6	−0.1	4.5
Plumbing Fixtures	315.0	0.1	1.9
Plywood	230.1	−1.8	−2.0
Portland Cement	355.7	−0.6	−0.2
Residual Fuel	885.7	−4.2	−21.8
Sand, Gravel	310.5	0.1	4.4
Sanitary Papers	380.0	−0.5	2.1
Soaps, Detergents	275.5	−0.1	1.2
Sporting Goods	203.5	0.0	−1.3
Steel Mill Products	365.3	−0.2	−0.7
Struc. Clay Products	300.2	0.2	3.7
Switchgear	281.4	1.0	0.9
Tires, Tubes	236.4	0.1	−0.8
Transformers	231.9	0.2	1.0
Trucks	335.1	−0.7	1.1
Valves	105.1	0.3	2.2
Wire, Cable	205.2	0.0	2.0
Wiring Devices	362.9	0.6	0.9

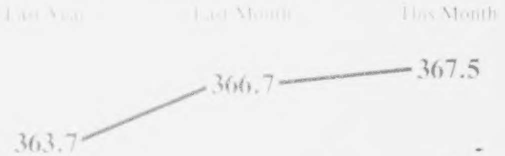
At-A-Glance Changes

MUNICIPAL COST INDEX



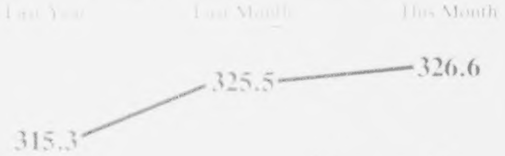
Percent Change From Last Month 0.2 Year 1.4

CONSTRUCTION COST INDEX



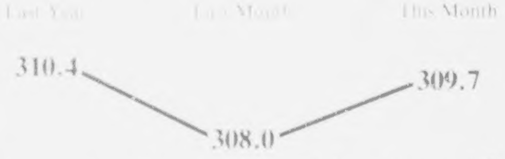
Percent Change From Last Month 0.2 Year 1.0

CONSUMER PRICE INDEX (BLS)



Percent Change From Last Month 0.3 Year 3.6

PRODUCER PRICE INDEX (BLS)



Percent Change From Last Month 0.6 Year −0.2

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year:
Receipts	558.0B	2.3	7.2
Federal Grants	100.4B	2.3	9.0
Durable Purchases	15.2B	1.3	6.3
Consumables	39.0B	−0.3	5.7
Services	390.2B	2.0	8.2
Structures	54.6B	9.9	15.7
Salaries, Wages	283.4B	1.8	7.8
Surplus	50.3B	−6.3	−7.7
Employment	13.463M	0.2	1.6

A Publication of Communication Channels, Inc.

C2425-3

MARCH 1986

AMERICAN CITY & COUNTY

administration engineering operations

The Magic of Software

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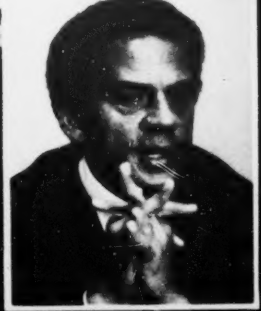
BETHESDA MD 20814

Long Distance Water Rights

Fine Tuning the Pension Machine



Profile of Andy Young

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March 1986

Vol. 101, No. 3

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As public purses get tighter, public-employee pension managers are looking to the private sector for clues.

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This idealistic "black knight" and inspirational leader has spearheaded growth and harmony in Atlanta.

68 ☐ Chester Funnye: Managing Growth

70 ☐ Calvin Carter: Airport Catalyst

About the Cover

The magic of software is no sleight-of-hand trick performed only by computer experts and hackers. Today's local government officials have a myriad of cost-effective and productivity-improving options for software to run their computer systems. Many of these applications are outlined beginning on page 28. (Photograph by Jeff Licata of Atlanta.)

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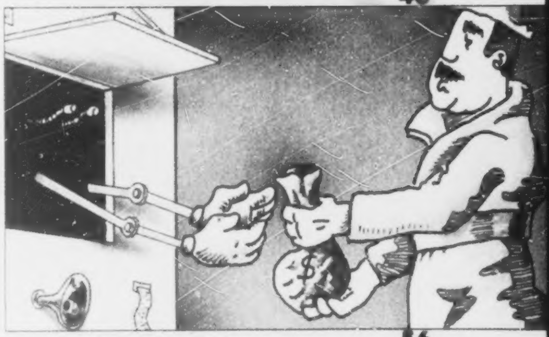

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American City & County is published monthly by Communication Channels, Inc., George E. Fowkes, Chairman of the Board; B. J. Kotsher, President; Scott Smith, Secretary; Buford Bryant, Treasurer. Editorial and advertising offices at 6255 Barfield Road, Atlanta, GA 30328. Telephone 404-256-9800. American City & County is a registered trademark of Communication Channels, Inc. © 1986 by Communication Channels, Inc. Application to mail at Second Class Postage paid at Atlanta, GA and at additional mailing offices. Subscription rates: U.S.A., 1 year $41; 2 years, $68; Canada and Mexico, 1 year, $44; Foreign, 1 year, $59; overseas air mail, $81. Single copies, $3.50. The opinions expressed by authors and contributors to American City & County are not necessarily those of the editors or publisher. Articles appearing in American City & County may not be reproduced in whole or in part without permission of the publisher. Microfilm copies of American City & County are available from Xerox University Microfilms, Ann Arbor, MI 48109. Postmaster: Please send form 3579 to Circulation Department, American City & County, 6255 Barfield Road, Atlanta, GA 30328.
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MUNICIPAL COST INDEXES

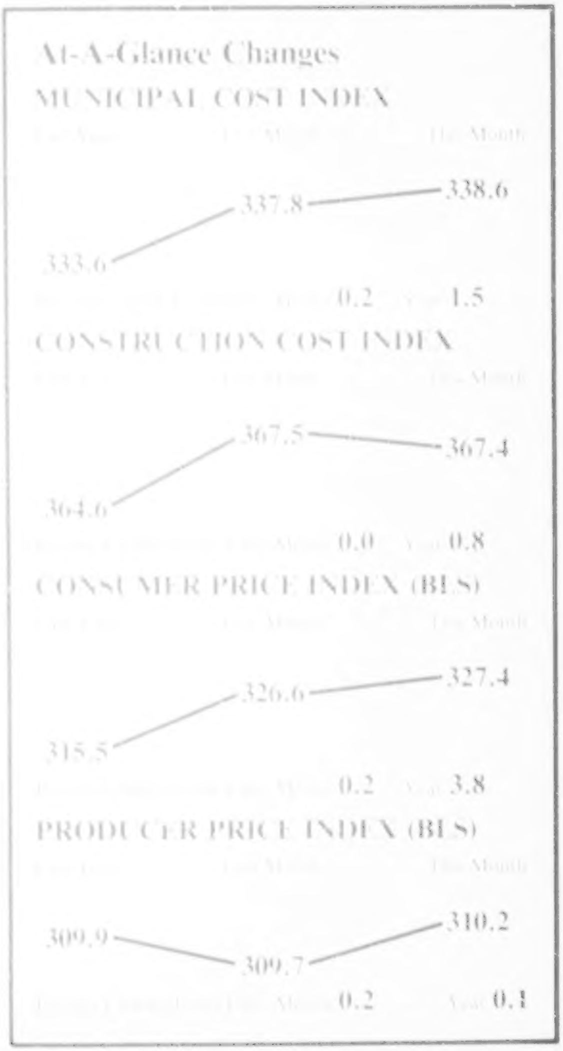
Due to fairly steady building and construction costs this month, the *Construction Cost Index* reported a minute decline of .1 to 367.4. The *Producer Price Index*, for the third consecutive month, increased significantly, as did the *Consumer Price Index*, which rose by 0.2 percent to 327.4.

Posting the biggest gain in this month's marketbasket was LP gas, which rose by 9.2 percent, followed by residual fuel at 7.8 percent and diesel fuel at 2.7 percent. Declining by the biggest margin was natural gas. Passenger cars, mixed fertilizers and asphalt roofing also reported slight drops for the month. ☐

— *Terri Stone*

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	147.5	0.0	1.8
Apparel	183.3	0.1	1.9
Asphalt Roofing	406.3	0.6	1.4
Books	136.6	0.4	4.9
Chemicals, Industrial	335.1	0.1	0.1
Coal	540.1	0.2	1.4
Concrete Products	324.3	0.2	0.1
Construction Machinery	363.6	0.0	1.6
Diesel Fuel	709.8	2.7	8.7
Electric Components	198.5	0.4	0.7
Electric Lamps	346.8	0.3	1.8
Electric Power	451.8	0.3	2.5
Engines, I.C.	347.1	0.1	2.5
Fans, Blowers	361.1	0.4	2.7
Fertilizers, Mixed	255.0	0.9	2.6
Floor Coverings	188.9	0.2	2.2
Flow Instruments	232.7	0.1	131.8
Footwear	258.9	0.1	2.8
Foundry Products	363.4	0.1	0.4
Fuel Oil No. 2	709.8	2.7	5.7
Furniture	313.7	0.8	4.7
Gasoline	569.9	0.3	3.0
Generator Sets	351.0	0.0	2.6
Glass	229.6	0.2	5.0
Glass Containers	387.0	0.0	6.3
Gypsum Products	356.7	2.1	7.9
Hardware	308.4	0.4	2.5
Heating Equipment	262.2	0.3	2.3
HVAC Controls	126.6	0.7	1.4
LP Gas	621.2	9.2	1.5
Lubricants	362.8	0.4	0.5
Lumber	325.2	0.6	N/A
Metal Fabrications	315.4	0.0	0.7
Millwork	312.1	0.0	0.2
Motor Vehicle Parts	351.0	0.0	2.6
Mowers	262.1	0.0	0.8
Natural Gas	1328.3	1.7	6.2
Office Machines	153.2	0.6	0.3
Paint	278.4	0.4	0.2
Paper	301.2	0.1	1.5
Passenger Cars	232.5	0.9	3.5
Plumbing Fixtures	314.7	0.1	1.7
Plywood	230.9	0.3	2.1
Portland Cement	356.5	0.2	0.6
Residual Fuel	955.2	7.8	15.6
Sand, Gravel	310.2	0.1	4.3
Sanitary Papers	380.0	0.0	2.2
Soaps, Detergents	275.4	0.0	1.1
Sporting Goods	203.8	0.1	1.0
Steel Mill Products	365.2	0.0	0.7
Struc. Clay Products	300	0.1	3.6
Switchgear	281.7	0.1	1.1
Tires, Tubes	235.8	0.3	0.5
Transformers	233.3	0.6	1.5
Trucks	335.2	0.0	8.5
Valves	105.3	0.2	2.4
Wire, Cable	205.3	0.0	2.0
Wiring Devices	364.2	0.4	1.3



QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year:
Receipts	570.7B	2.3	8.8
Federal Grants	100.4B	2.3	9.0
Durable Purchases	15.2B	1.3	6.3
Consumables	39.0B	0.3	5.7
Services	390.2B	2.0	8.2
Structures	54.6B	9.0	15.7
Salaries, Wages	283.4B	1.8	7.8
Surplus	49.6B	1.4	4.2
Employment	13.534M	0.5	1.8

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APRIL 1986

AMERICAN CITY & COUNTY™

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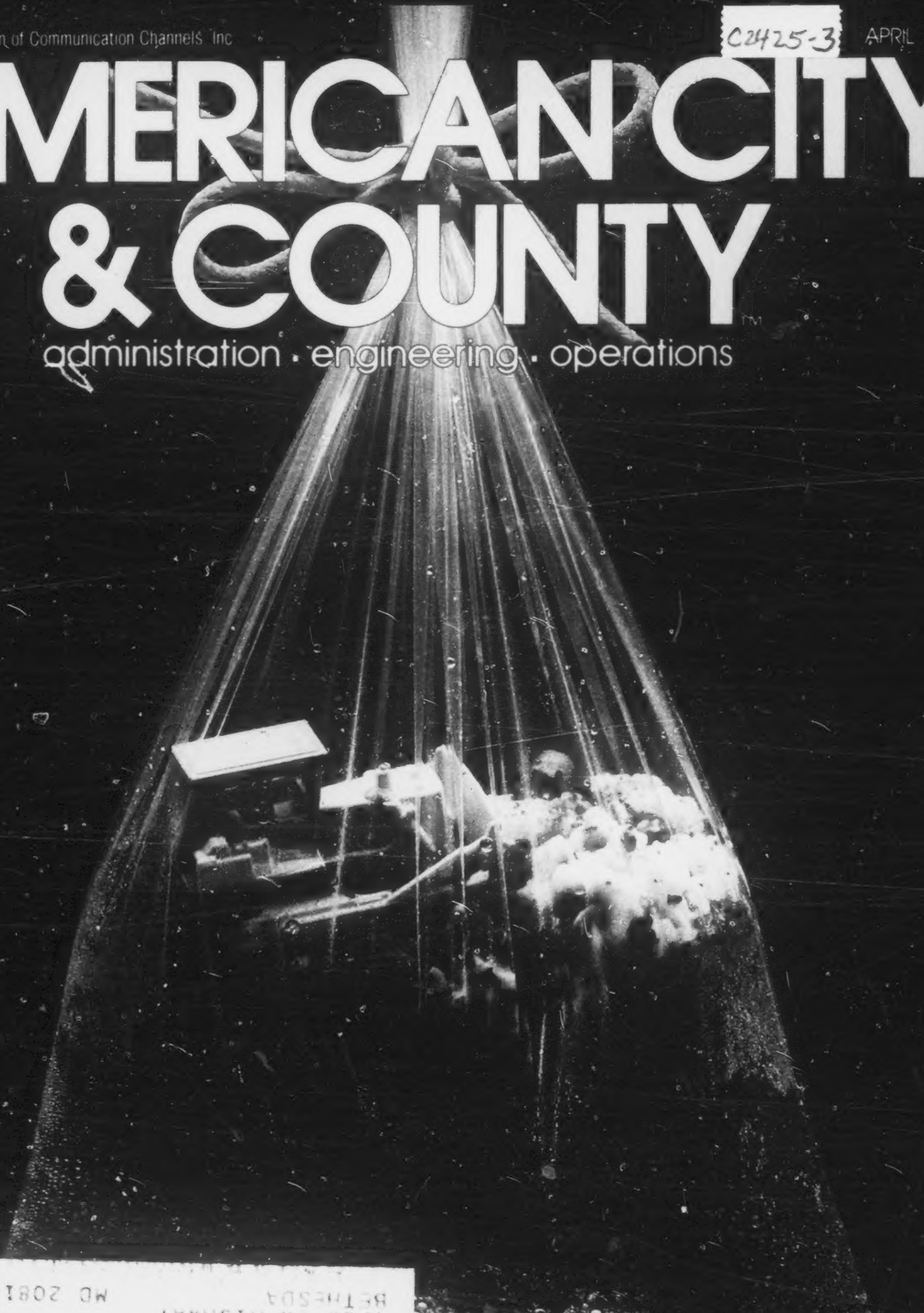

Containing the Landfill Leaks

Small Town Snow Removal

Out on a Limb With Revenue Sharing

A Publication of Communication Channels Inc

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April 1986

Vol. 101, No 4

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Groundwater contamination from sanitary landfill leaks has prompted national awareness of the need for tighter environmental controls.

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About the Cover

Containing landfill leaks is a prime concern of both local governments and the public, and one that has sparked national recognition of the need for tighter environmental controls. Today's problematic situation and new corrective legislation are featured beginning on page 28. (Photo by John Carter of Atlanta.)

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MUNICIPAL COST INDEXES

Following a slight decline to 367.4 in March, the *Construction Cost Index* again is climbing — up 0.3 percent for the month and 1 percent for the year.

The *Producer Price Index* reported the only index decline for April, down by more than one point to 309.0, or 0.4 percent. The *Municipal Cost Index* had a 0.1 percent gain, and the *Consumer Price Index* rose to 328.4 — for a 3.9 percent yearly growth.

Most of the fuel family, which has climbed steadily in recent months, now post sizeable declines. Fuel oil no. 2 fell by 9 percent, residual fuel by 8.1 percent and diesel fuel by 8 percent. Sand/gravel and trucks reported the largest increases. ☐

— *Terri Stone*

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	148.1	0.4	1.6
Apparel	182.4	0.5	1.1
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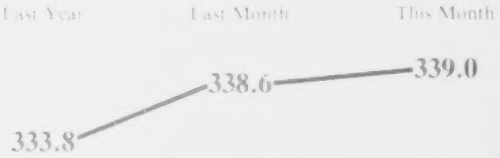
Coal	541.2	0.2	1.2
Concrete Products	325.5	0.4	3.5
Construction Machinery	365.0	0.4	0.8
Diesel Fuel	652.7	-8.0	1.7
Electric Components	198.9	0.2	0.2
Electric Lamps	346.5	0.1	2.0
Electric Power	454.5	0.6	1.9
Engines, I.C.	348.2	0.3	2.7
Fans, Blowers	361.9	2.0	1.2
Fertilizers, Mixed	250.9	1.6	3.8
Floor Coverings	189.6	0.4	2.1
Flow Instruments	233.3	0.3	1.2
Footwear	259.7	0.3	2.7
Foundry Products	363.8	0.1	0.4
Fuel Oil No. 2	687.5	-9.0	1.1
Furniture	315.2	0.5	5.0
Gasoline	532.8	6.5	0.5
Generator Sets	351.8	0.1	3.3
Glass	229.9	0.1	3.9
Glass Containers	386.9	0.0	6.4
Gypsum Products	360.3	1.0	9.6
Hardware	309.9	0.5	2.4
Heating Equipment	264.6	0.9	3.2
HVAC Controls	125.9	0.6	0.2
LP Gas	631.4	1.6	9.1
Lubricants	376.5	2.4	1.3
Lumber	330.0	1.5	N/A
Metal Fabrications	314.6	-0.1	0.9
Millwork	311.7	0.1	0.3
Motor Vehicle Parts	355.5	0.1	0.8
Mowers	263.4	0.5	1.1
Natural Gas	1335.5	0.5	3.9
Office Machines	154.5	0.8	0.7
Paint	279.4	0.4	0.4
Paper	301.0	0.1	1.7
Passenger Cars	230.1	1.0	1.3
Plumbing Fixtures	314.8	0.0	2.7
Plywood	229.5	0.6	2.0
Portland Cement	358.7	0.6	0.5
Residual Fuel	877.7	8.1	21.9
Sand, Gravel	311.8	3.5	0.5
Sanitary Papers	380.4	0.1	1.9
Soaps, Detergents	275.5	0.0	1.1
Sporting Goods	203.0	0.4	0.5
Steel Mill Products	349.4	4.3	4.9
Struc. Clay Products	305.4	1.8	4.8
Switchgear	281.9	0.1	0.9
Tires, Tubes	235.7	0.0	1.1
Transformers	233.0	0.1	1.0
Trucks	344.9	2.9	10.9
Valves	106.1	0.8	2.4
Wire, Cable	308.9	0.9	1.2
Wiring Devices	369.3	1.4	2.5

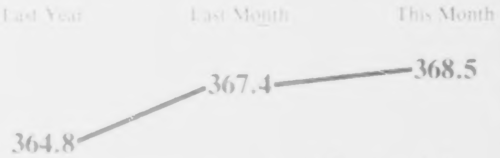
At-A-Glance Changes

MUNICIPAL COST INDEX



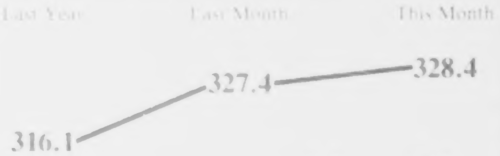
Percent Change From Last Month **0.1** Year **1.6**

CONSTRUCTION COST INDEX



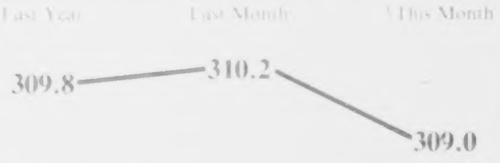
Percent Change From Last Month **0.3** Year **1.0**

CONSUMER PRICE INDEX (BLS)



Percent Change From Last Month **0.3** Year **3.9**

PRODUCER PRICE INDEX (BLS)



Percent Change From Last Month **−0.4** Year **−0.3**

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year
Receipts	581.8B	2.1	7.3
Federal Grants	101.5B	0.9	4.3
Durable Purchases	20.6B	2.0	7.3
Consumables	39.8B	4.2	7.0
Services	357.3B	1.9	7.9
Structures	57.5B	1.7	19.8
Salaries, Wages	286.9B	1.9	7.7
Surplus	56.9B	-0.7	-8.4
Employment	13.624M	0.4	2.9

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MAY 1986

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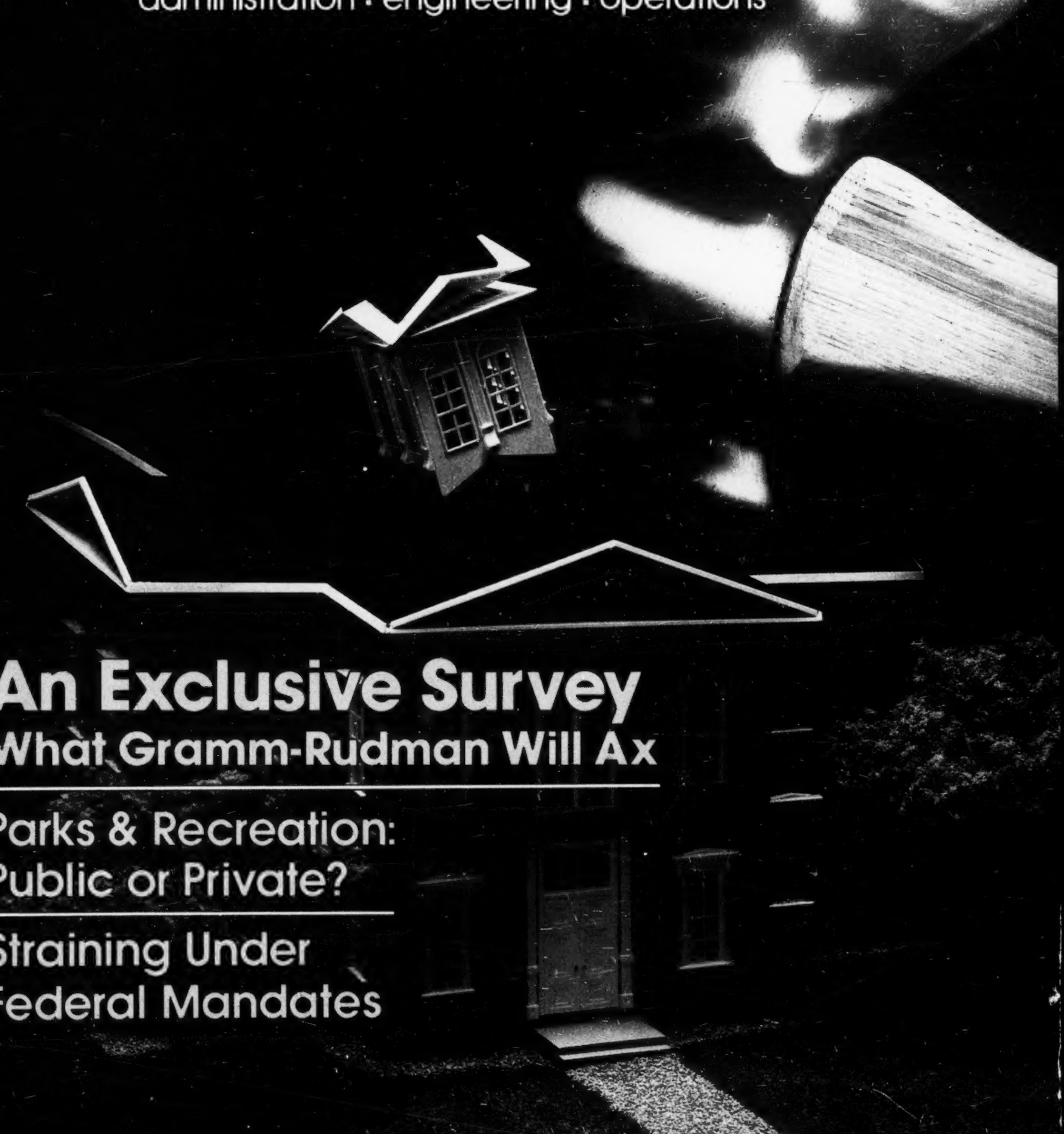

An Exclusive Survey

What Gramm-Rudman Will Ax

Parks & Recreation: Public or Private?

Straining Under Federal Mandates

A Publication of Communication Channels, Inc.

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MAY 1986

Vol. 101, No. 5

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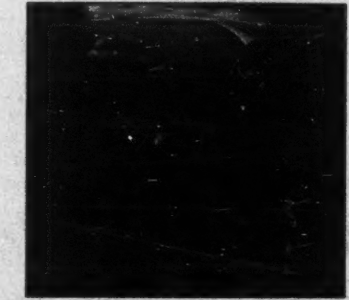

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Beginning on page 42 this month is *American City & County's* exclusive survey on what effects the Gramm-Rudman-Hollings balanced budget amendment will have on local governments. The general consensus is that the ax will fall on local programs. (Photo by Neil Copeland of Atlanta.)

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AC&C
Survey

Survey Shows Ax Will Fall

An exclusive *American City and County*/Touche Ross survey of municipal leaders reveals widespread concern over the anticipated effects of the Gramm-Rudman-Hollings balanced budget amendment.

By Rhett Harrell

Illustration By Becky Craig

Asking mayors and city managers what they think of the Gramm-Rudman-Hollings (GRH) bill is like asking them to choose from among a walk over white hot coals, a wrestling match with an alligator or a sharp stick in the eye. No choice is nice — the decision rests with which alternative hurts least.

American City and County magazine and Touche Ross, a multinational accounting and consulting firm, surveyed 2,000 city and county officials on GRH and its anticipated effects on their cities. A high percentage of the 315 respondents consider themselves well informed about the bill. Seventeen percent say they understand the bill "thoroughly," while 64 percent indicate they understand it "somewhat."

Municipal officials' awareness of GRH is not surprising considering the profound impact the act will have on the shape of local government administration and services during the next five years. The survey indicates the gravity of the new budget measure has hit home with local government leaders. For example, revenue sharing had been eliminated before GRH was passed, but any chance of resurrecting it may have been squelched by the bill. As a result, 66 percent of the respondents believe that beyond September 30, 1986, General Revenue Sharing will cease to exist.

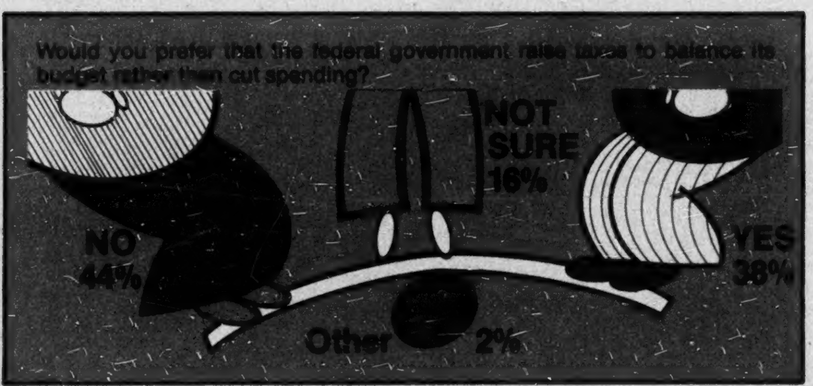
Some municipal officials volunteered their calculations of how much their cities stand to lose. Nicholas Riggs, city administrative officer of Shively, Kentucky, says his city's $2.1 million budget would lose between $150,000 and $175,000 in revenue sharing funds.

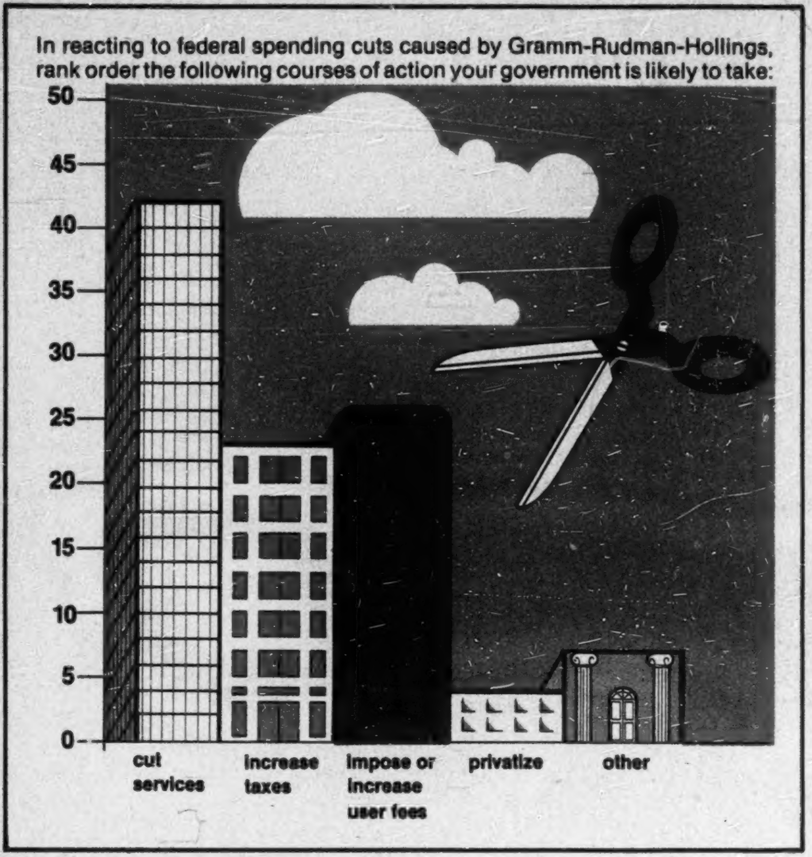
The survey also points out the general ambiguity surrounding GRH. Concerning the effectiveness of GRH, almost 70 percent of the respondents say it will not balance the budget, as the law requires. However, among those who say GRH will fail, approximately 55 percent expect it to reduce the deficit from its current $171.9 billion mark to less than $100 billion in the time allotted. Yet, no clear-cut consensus among those surveyed advises whether the federal government should raise taxes or cut services to accomplish deficit reduction.

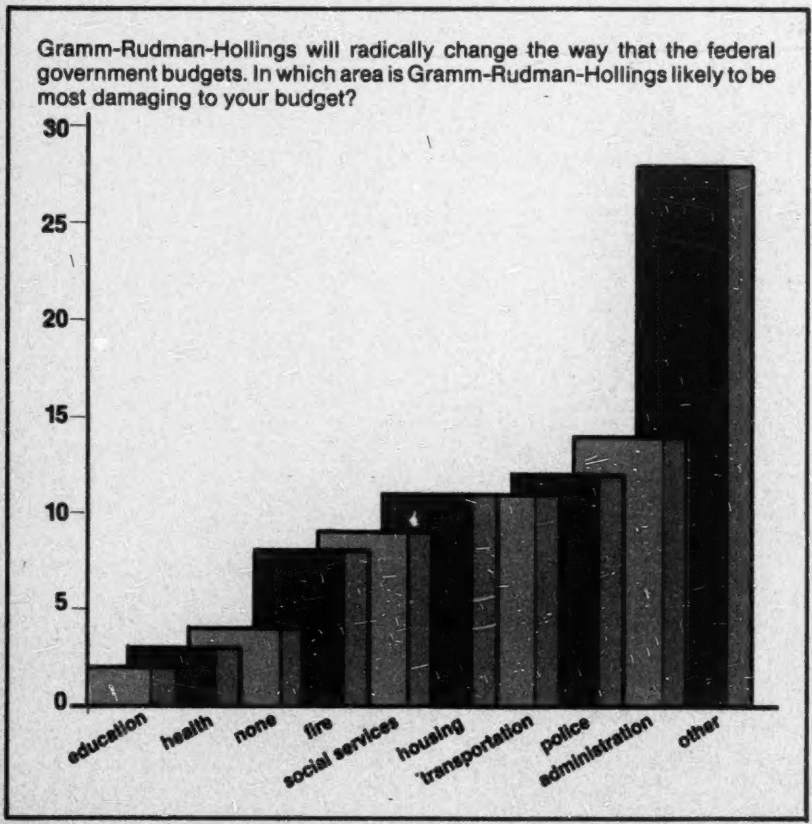
Among survey responses, negative remarks are clearly the order of the day. Comments regarding Gramm-Rudman-Hollings range from "a farce" to "a budgetary Hindenburg" to "a cop out." Only a handful of leaders express sympathy for the manner in which deficit reduction is being carried out.

Many local leaders who completed the survey are angry about the administration's priorities. "It is an attempt by a deficit-riddled government to transfer national priorities, goals and fiscal responsibilities to fragmented local and state entities, which lack adequate revenue, authority and capacity," says James Johnson, director of finance for Wylie, Texas.

"Although I am a retired U.S. Air Force officer, and although our local


Would you prefer that the federal government raise taxes to balance its budget rather than cut spending?


In reacting to federal spending cuts caused by Gramm-Rudman-Hollings, rank order the following courses of action your government is likely to take:


Gramm-Rudman-Hollings will radically change the way that the federal government budgets. In which area is Gramm-Rudman-Hollings likely to be most damaging to your budget?

economy depends heavily on Homestead Air Force Base, I still deplore President Reagan's priorities," says Mayor Irving Peskoe of Homestead, Florida.

Fierce independence

On the other side of the issue is a small number of local leaders who favor a posture of fierce independence from the federal government. Emory Stephens, city manager of Dahlonega, Georgia, says he supports deficit reduction and a belief that local governments should take care of local services. "There is no reason local government should continue to depend on the federal handout. Cities across the nation should rely on their own resources and good management to pay their own way," he says.

That feeling is echoed by J.V. Little, city manager of Vero Beach, Florida, who adds, "It does not make sense to run serious federal deficits while funding local needs. It is time for the federal budget to be balanced at any cost."

Sun Belt cities, where economic conditions are stable or growing, may be in a better position than communities in other parts of the nation to compensate for the loss of federal funds. "We have 19 percent unemployment," says Mayor John Craig of Grand Rapids, Michigan, "and face a bleak future without the ability to raise funds for economic development programs. Gramm-Rudman will cripple our ability to assist our local economy."

Whether or not they favor GRH, local governments apparently are busy preparing their fiscal responses. More than 75 percent of respondents indicate they already have or will implement their reactions to the federal spending cuts this year or next year. Some who predict the law will be revoked or amended have adopted a "wait-and-see" attitude.

Local officials should not be lulled into a false sense of security by Supreme Court action on the bill. The "Balanced Budget and Emergency Deficit Control Act," now signed into law by the U.S. Congress, has set as its goal a balanced federal budget by the year 1991. In dealing with federal revenue losses, local governments must choose from among several fundamentally distasteful alternatives — higher taxes, cut services, privatization or increased user fees.

The overwhelming course of action local government officials have selected is cutting services. Nearly 50 percent indicate they will pursue that avenue, while 27 percent say they will use new or increased user fees to generate needed income. Only 23 percent will opt to raise local taxes. Not surprisingly, virtually all responding mayors indicate they prefer cutting services while their typically non-elected counterparts, the city managers, favor increased user fees and taxes.

Survey results show that local government leaders, on the whole, favor cutting those programs that rely most heavily on federal subsidies. In other words, if federal funding for local housing rehabilitation is eliminated, then local government simply will no longer offer the service.

Dealing with reality

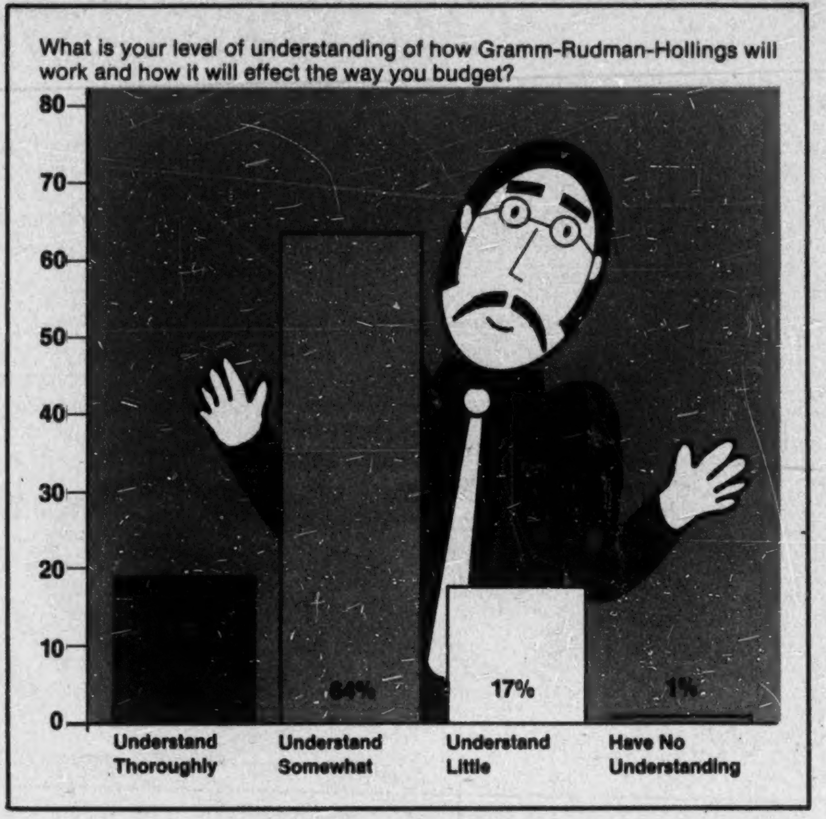
While that position may be fiscally sound, it also may be more easily said than done. Today's tough talk may be forced to adjust to the dictates of tomorrow's reality. Federally subsidized social services programs with a history of answering human needs do not die easily, and public officials may have to anticipate dealing with the issue of local funds picking up where federal funds left off.

Asked which budget area they expect will be hit hardest by GRH, 14 percent point to administration. This expectation is a reflection of what local governments can anticipate as federal cuts are implemented. Fewer clerks and secretaries, as well as slimmer operating costs, likely will characterize local government administration in the new Gramm-Rudman era. Of course, administration figures into every service offered by a government entity, so most municipal services will be affected. Police and fire protection rank second and third as budget categories in which local government officials anticipate reductions.

Federal programs that respondents designate as most difficult to survive without are: economic development, with 80 percent citing Community Development Block Grants as the toughest to lose; transportation, with 57 percent specifying federal-aid highway programs as difficult to lose; housing, with subsidized and low-income housing programs cited; and education, with vocational education listed as a priority program.

The *American City and County*/Touche Ross survey reveals that most local officials agree that a time of tremendous transition and adjustment is ahead. In Washington, D.C., insiders jokingly have turned the authors of the deficit reduction bill into a new verb. Local government officials can hope to avoid being "Gramm-Rudmanned," but they are better advised to study GRH, watch its inevitable changes on Capitol Hill and seek expert advice on choosing the least painful course. ☐

Rhett Harrell is an audit manager for Touche Ross in Atlanta, Ga. Additional research was provided by Rie Nishimura, John D'Avanzo, Arlette Ryan and Eric Cutler.


What is your level of understanding of how Gramm-Rudman-Hollings will work and how it will effect the way you budget?

Tough Times Ahead For Local Officials

By Stanley Collender

For state and local governments, the 1985 Balanced Budget and Emergency Deficit Control Act could be easily the most fiscally disruptive law ever enacted by the federal government. At best, the new law — better known as Gramm-Rudman-Hollings after its three leading Senate sponsors, Phil Gramm, Warren Rudman and Ernest Hollings — promises increased uncertainty about what programs the federal government will fund, at what levels, and how long those funds will be available. At worst, the act means the virtual elimination of all federal aid to state and local governments during the next five years.

The Gramm-Rudman-Hollings federal budget process contains two major elements; both pose serious threats to state and local governments. First, the legislation mandates specific deficit targets, or "maximum deficit amounts," for the next five fiscal years, starting with $171.9 billion in fiscal 1986 and declining by approximately $36 billion a year until the budget finally is balanced in fiscal 1991. Each year, the president is required to submit a budget to Congress that has a deficit no higher than the amount set for that year. Similarly, Congress is required to pass a budget, and the spending and tax bills to enact it. The budget must not have a deficit higher than the maximum allowed under the new law.

Since Gramm-Rudman-Hollings does not specify how the maximum deficit is to be reached — only that it must not be exceeded — the president and Congress are free to propose any combination of spending cuts or tax increases. However, the technicalities of the federal budget, combined with current Washington politics, have exempted a large number of federal programs from spending cuts. And it is no secret that the Reagan administration adamantly opposes a tax increase of any kind.

The reality of the situation, therefore, is that although legislation does not specify, the programs most likely to suffer the deepest wounds are those that state and local governments care about most.

How can this be true? How is it pos-

MUNICIPAL COST INDEXES

The **Municipal Cost Index** for May dropped one point from April, leveling out at 337.6.

The **Construction Cost Index** rose slightly by 0.3 percent to 368.6, up from last month's figure of 367.4. Also rising slightly is the **Consumer Price Index**, which slows a .03 percent gain for the month. The **Producer Price Index**, however, continues its decline, falling almost two percent to 304.7.

Products in the fuel and oil familiy showed dramatic decreases in this month's marketbasket. Fuel Oil No. 2 fell over 27 percent, while diesel fuel slumped by 22 percent. Other commodities listed fared well, posting slight gains or losses.

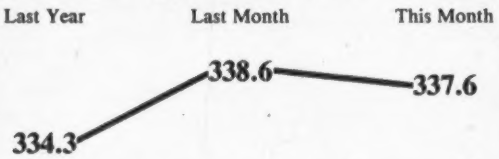
— Joe Morris

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	148.2	.1	1.5
Apparel	183.6	.7	1.5
Asphalt Roofing	405.0	0.0	−.6
Books	138.0	1.0	5.1
Chemicals, Industrial	340.0	0.0	1.0
Coal	538.0	−.6	−2.1
Concrete Products	325.6	0.0	3.5
Construction Machinery	365.4	.1	.6
Diesel Fuel	507.7	−22.1	−21.5
Electric Components	199.3	.2	.3
Electric Lamps	346.8	−.1	2.0
Electric Power	460.5	1.3	3.3
Engines, I.C.	348.9	.2	2.7
Fans, Blowers	361.9	.2	1.2
Fertilizers, Mixed	253.4	1.0	−2.2
Floor Coverings	190.4	.4	−1.0
Flow Instruments	233.3	−.1	1.0
Footwear	260.4	.3	1.8
Foundry Products	365.2	.4	.7
Fuel Oil No. 2	499.1	−27.4	−24.0
Furniture	315.1	0.0	4.1
Gasoline	472.8	−11.3	−6.8
Generator Sets	349.6	0.0	−.1
Glass	229.8	0.0	4.0
Glass Containers	387.5	.2	6.3
Gypsum Products	362.2	.5	5.2
Hardware	309.6	−.1	2.1
Heating Equipment	264.9	.1	3.0
HVAC Controls	125.9	−.6	.2
LP Gas	578.7	−8.3	8.9
Lubricants	376.5	2.4	1.3
Lumber	330.6	−.7	−4.6
Metal Fabrications	315.8	.2	.7
Millwork	311.8	0.0	.1
Motor Vehicle Parts	357.3	.5	1.0
Mowers	262.1	.5	1.1
Natural Gas	1337.0	.1	−5.6
Office Machines	155.2	.5	1.0
Paint	278.9	−.2	1.5
Paper	301.4	.1	−1.0
Passenger Cars	229.6	−.2	1.1
Plumbing Fixtures	316.0	.4	3.0
Plywood	229.0	−.2	1.1
Portland Cement	359.4	.2	−.1
Residual Fuel	756.5	−13.8	−31.7
Sand, Gravel	312.9	.4	2.9
Sanitary Papers	380.9	.1	1.7
Soaps, Detergents	275.1	−.1	.9
Sporting Goods	203.2	.1	−.6
Steel Mill Products	346.4	−.9	−5.7
Struc. Clay Products	305.4	1.8	4.8
Switchgear	282.6	.2	1.0
Tires, Tubes	237.3	.7	−.9
Transformers	233.0	−.1	1.0
Trucks	340.2	−1.4	2.1
Valves	106.2	.1	2.1
Wire, Cable	206.4	0.0	1.5
Wiring Devices	370.8	.4	2.7

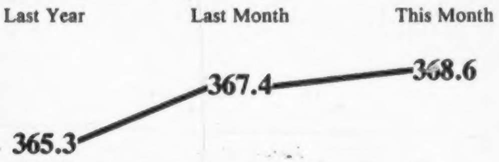
At-A-Glance Changes

MUNICIPAL COST INDEX



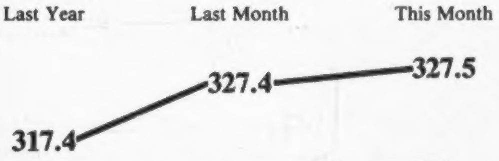
Percent Change From Last: Month **−.31** Year **.98**

CONSTRUCTION COST INDEX



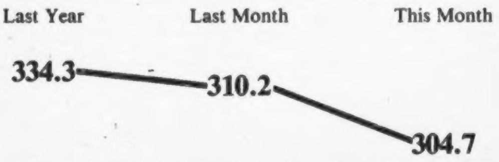
Percent Change From Last: Month **.3** Year **.9**

CONSUMER PRICE INDEX (BLS)



Percent Change From Last: Month **.03** Year **3.2**

PRODUCER PRICE INDEX (BLS)



Percent Change From Last: Month **−1.8** Year **−1.8**

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year
Receipts	581.8B	2.0	7.3
Federal Grants	102.0B	1.4	4.8
Durable Purchases	20.6B	2.0	7.3
Consumables	39.9B	4.5	7.3
Services	357.2B	1.9	7.9
Structures	55.8B	−4.6	1.6
Salaries, Wages	286.9B	1.9	7.7
Surplus	56.9B	−.7	−8.4
Employment	13.568M	−.2	2.2

JUNE

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JUNE 1986

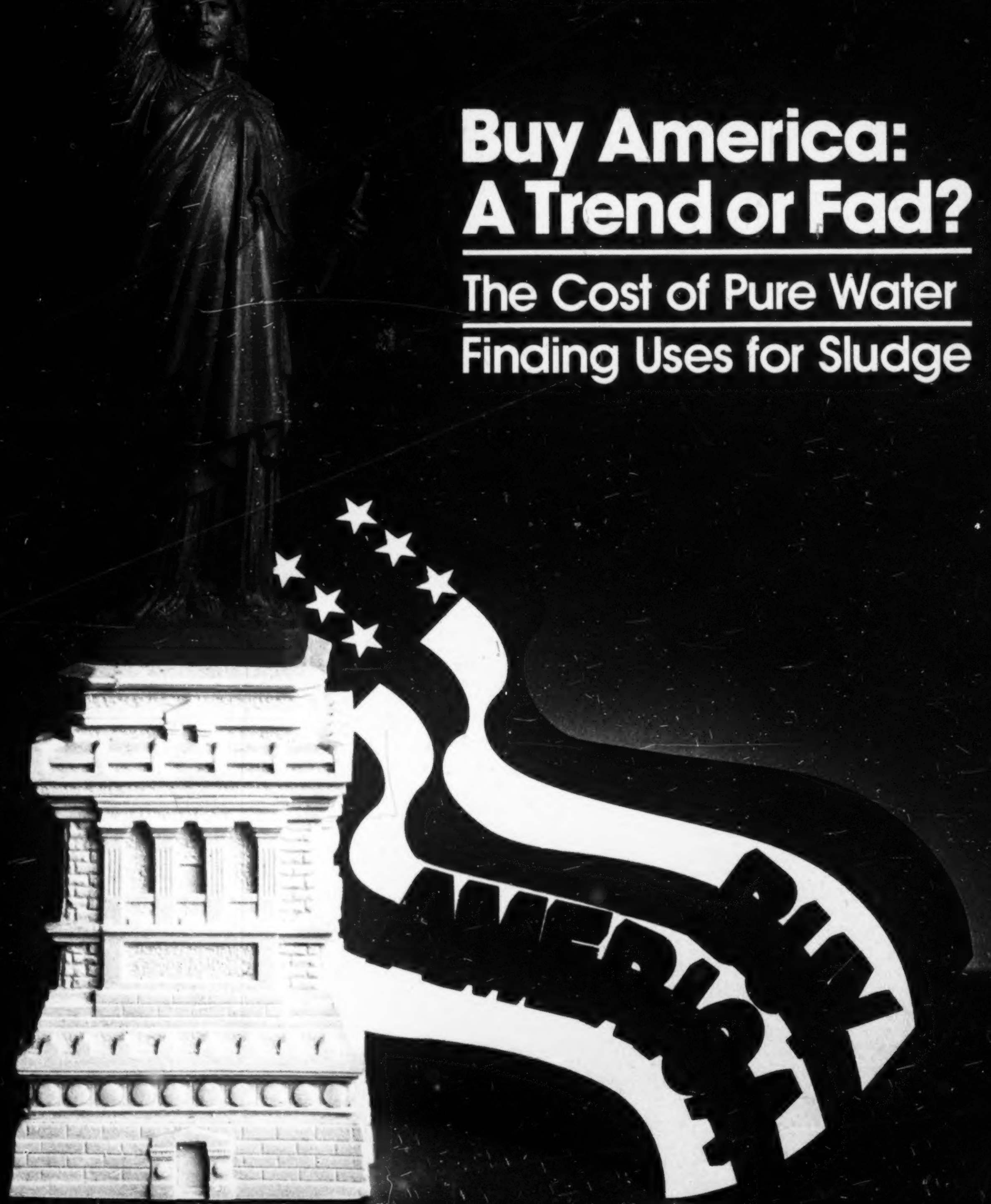
AMERICAN CITY & COUNTY™

administration · engineering · operations

Buy America: A Trend or Fad?

The Cost of Pure Water

Finding Uses for Sludge



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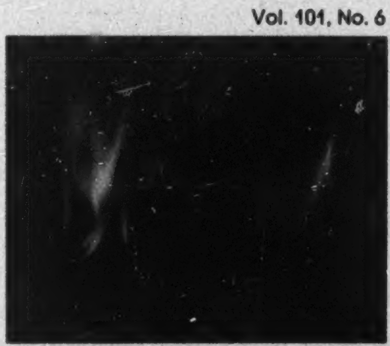

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About the Cover

"Buy America" is a trendy phrase these days, but for local government officials, public pressure and existing legislation give "Made in the U.S.A." new meaning. (Photo by Terri Teague)

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MUNICIPAL COST INDEXES

The **Municipal Cost Index** for June posted a slight loss, dropping from 337.6 to 336.3. Also declining were the **Consumer Price Index** and the **Producer Price Index**, with the latter showing a loss of 7.1 percent from last month. The **Construction Cost Index** rose slightly in June, however, up 0.3 pecent from May.

Products in the fuel and oil family continued their decline, posting the greatest losses in this month's marketbasket. Residual fuel oil and diesel fuel showed one of the largest declines, each down almost 40 percent from last year's figures.

— Joe Morris

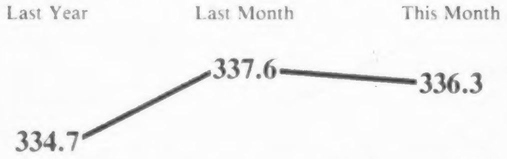
These figures are calculated on a base year of 1967.

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	148.5	.2	1.4
Apparel	183.8	.1	1.5
Asphalt Roofing	400.4	-1.1	-1.4
Books	137.8	-.1	5.0
Chemicals, Industrial	335.3	-1.4	-.4
Coal	539.6	.3	-1.7
Concrete Products	325.4	-.1	3.0
Construction Machinery	365.7	.1	.9
Diesel Fuel	392.8	-22.6	-38.3
Electric Components	200.1	.4	.7
Electric Lamps	349.3	.6	3.2
Electric Power	450.9	-22.1	-14.6
Engines, I.C.	349.6	.2	2.9
Fans, Blowers	362.1	.2	1.5
Fertilizers, Mixed	252.7	-.3	-2.7
Floor Coverings	193.8	1.8	.5
Flow Instruments	235.7	-.4	1.2
Footwear	261.5	.4	2.5
Foundry Products	364.8	-.1	.6
Fuel Oil No. 2	443.1	-11.2	-33.2
Furniture	314.5	-.2	3.6
Gasoline	371.3	-21.5	-28.1
Generator Sets	349.3	-.1	-.1
Glass	229.5	-.1	3.9
Glass Containers	388.5	.3	3.9
Gypsum Products	351.1	-3.1	4.4
Hardware	311.6	.6	2.2
Heating Equipment	264.7	-.1	2.8
HVAC Controls	125.9	-.6	.8
LP Gas	450.9	-22.1	-14.6
Lubricants	380.8	.2	3.0
Lumber	339.2	2.6	-2.5
Metal Fabrications	315.1	-.2	.2
Millwork	313.7	.6	1.1
Motor Vehicle Parts	358.8	.4	1.4
Mowers	106.7	-.2	.9
Natural Gas	1328.9	-.6	-3.6
Office Machines	153.9	-.8	.3
Paint	280.0	.4	1.8
Paper	301.5	0.0	-.7
Passenger Cars	229.1	-.2	1.1
Plumbing Fixtures	324.6	2.7	5.5
Plywood	232.3	1.4	3.9
Portland Cement	359.1	-.1	-.6
Residual Fuel	665.5	-12.0	-40.2
Sand, Gravel	315.0	.7	3.2
Sanitary Papers	381.4	.1	1.9
Soaps, Detergents	276.5	.5	1.4
Sporting Goods	203.9	.3	-.4
Steel Mill Products	346.6	.1	-5.5
Struc. Clay Products	303.7	.4	4.5
Switchgear	283.6	.4	.7
Tires, Tubes	236.5	-.3	-1.0
Transformers	234.4	.1	-.2
Trucks	340.2	0.0	2.1
Valves	106.2	0.0	1.8
Wire, Cable	206.5	0.0	1.8
Wiring Devices	372.7	.5	3.2

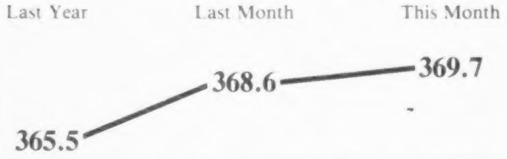
At-A-Glance Changes

MUNICIPAL COST INDEX



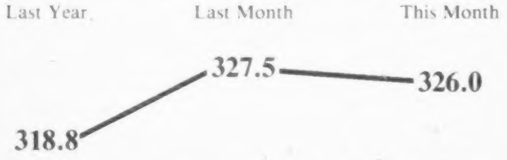
Percent Change From Last: Month **-0.4** Year **0.5**

CONSTRUCTION COST INDEX



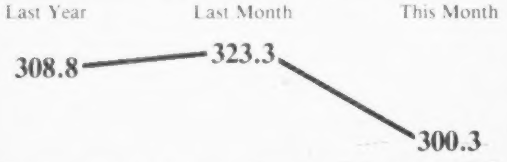
Percent Change From Last: Month **0.3** Year **-1.1**

CONSUMER PRICE INDEX (BLS)



Percent Change From Last: Month **-.6** Year **2.3**

PRODUCER PRICE INDEX (BLS)



Percent Change From Last: Month **-7.1** Year **-2.7**

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year
Receipts	589.7B	1.4	8.8
Federal Grants	102.0B	1.4	4.8
Durable Purchases	20.6B	2.0	7.3
Consumables	39.9B	4.5	7.3
Services	357.2B	1.9	7.9
Structures	54.7B	-6.5	7.4
Salaries, Wages	286.9B	1.9	7.7
Surplus	59.4B	4.4	-9.7
Employment	13.581M	.07	2.3

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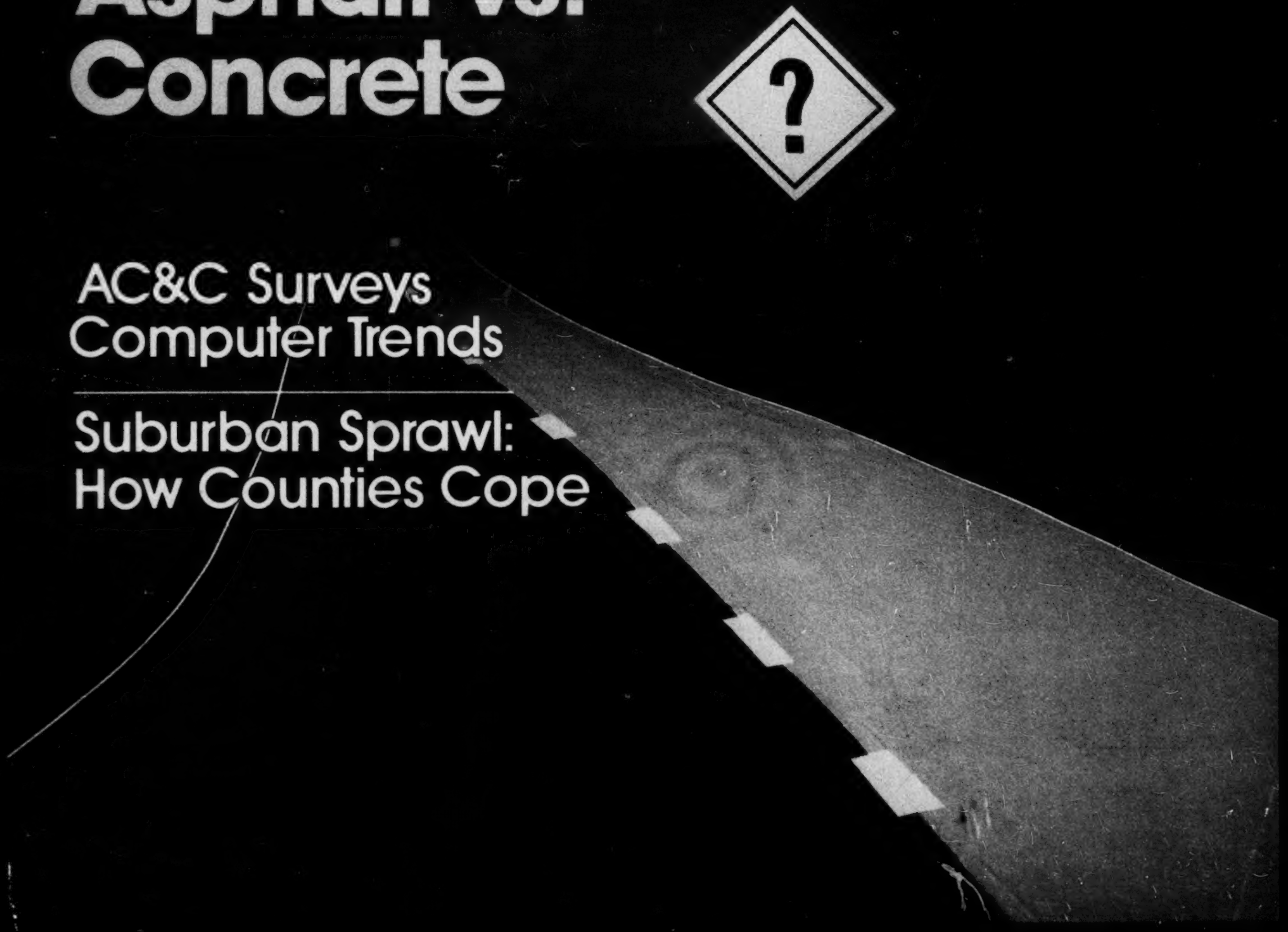
Asphalt vs. Concrete



AC&C Surveys Computer Trends

Suburban Sprawl: How Counties Cope

A Publication of Communication Channels, Inc.

AMERICAN CITY & COUNTY

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BPA

July 1986

Vol. 101, No.7

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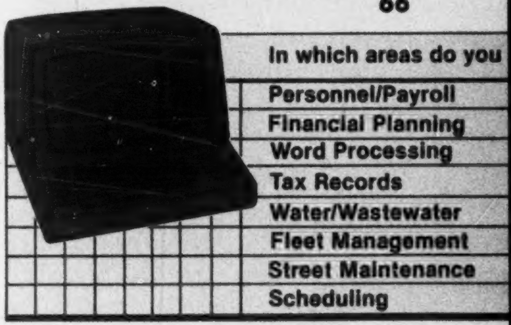

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About the Cover

When choosing between asphalt and concrete for pavement, many questions need to be answered concerning the durability of the materials, and rehabilitation and life-cycle costs. This month's cover story addresses those questions. (Photograph by Terri Teague of Atlanta.)

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Q. A. AC&C Survey

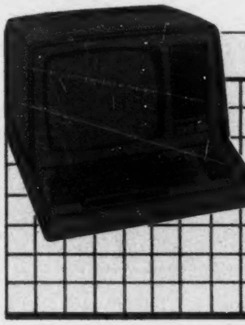
Computers Move Beyond Payroll

Local governments are relying increasingly on computers to handle projects from water and sewer bills to tax forms to map planning, an *American City and County* survey reveals.

By Joe Morris, Assistant Editor

Illustrations by Noreen Sherry

Clicks and whirrs from computer terminals can be heard all across America as local governments take advantage of the strides being made in high-tech industries. Now more than ever, cities and counties are automating their operations with the latest technology.



In which areas do you use computers?	
Personnel/Payroll	83%
Financial Planning	80%
Word Processing	70%
Tax Records	44%
Water/Wastewater	44%
Fleet Management	23%
Street Maintenance	16%
Scheduling	14%

In an exclusive *American City and County* survey of city and county officials, 91 percent of all respondents indicated they had some form of computer equipment currently operating in their administration. This number represents a marked conversion from standard office equipment to computer technology for local governments, a conversion that has occurred rapidly, says Lynn Gardner, manager of local government marketing for Hewlett-Packard.

"Local government computerization has been increasing over the past couple of years," says Gardner. "Most began with financial applications, and are now moving into other areas."

Other computer vendors also note the increase in municipal systems sales. "We're seeing a move to automation today that is much stronger than it was even in 1984," says Dave Crago, industry marketing manager for Prime Computer Inc.

"The surge in automation stemmed from the fact that computer technology became available to even the smallest cities and counties," says Doug Monroe, an IBM spokesman. "Automation was seen as a way to increase productivity in all aspects of governmental operations."

Since the early 1980s, advancements in the personal computer field have triggered attempts by municipalities to update their operations. Well aware of the trend, local officials say they are not surprised at the vast number of governments utilizing computer technology. Most note, however, the increase in usage has been a recent phenomenon.

"Five years ago, the usage would not have been as high," says Philip K. Schenck Jr., city manager of Avon, Connecticut. "But there is a lot more computer use now in the Northeast, particularly in the New England area. We have moved past the developmental stages with systems."

When a municipality does move into the computer age, it generally does so with smaller computers. This effort to stay away from the larger, mainframe systems gives many smaller computer suppliers a chance to move into the market, Gardner says. The trend also means governments are maintaining their own operations, rather than contracting out computer maintenance services.

Of those surveyed, 83 percent said their computer systems were entirely in-house, while 14 percent said they contracted out computer services.

The computer vendors in the market, largely dominated by IBM, from whom 44 percent of the respondents bought their equipment, also do well with training government staff using their high-tech machinery. Continuing training was provided for 66 percent of those responding to the survey, while 26 percent said their manufacturer did not provide continuing training after the initial familiarization program.

The municipal computer boom has taken place in stages, or at various levels, Gardner says. First, a government is likely to automate its financial departments, such as accounting and taxation. Computer applications for various departments, such as public works, police, and parks and recreation, usually follow.

This theory is borne out by survey results that show 83 percent of local governments use computers in personnel and payroll departments, and 80 percent in financial planning. Word processing computer applications are utilized by 70 percent of the survey respondents, and other office applications are the next level of computerization, Gardner says.

"Areas such as public works are becoming more esoteric, beginning to use computers for such things as flow monitoring. All areas are doing much more planning with computers," Schenck says.

"After a government has automated its financial and other departmental needs, sometimes it will move into office automation applications," Gardner says.

One major area likely to become automated is planning and forecasting, Schenck says, due in part to the 1990 census.

"Because of the application and availability of data from smaller towns, the 1990 census will be used much more widely," he says. In 1980, most data came from larger towns that had major computer systems in operation. With the boom in smaller systems and personal computers, more data from a broader range of municipalities will be available, Schenck adds.

> ***Initial costs may be high, but productivity improvements generally offset start-up costs.***

Because local government personnel handle diverse activities, they search for equipment that will allow them to perform many functions, according to a recent report from Sperry Corp.

"The public sector manager needs to be able to move quickly from task to task in an integrated fashion," the report says, "pulling in data from the mainframe for analysis, whipping out a memo or report, presenting (the memo) at a meeting, while handling the constant interruption of phone calls."

Many forms of office automation technology exist, one of the most popular being electronic mail. This method of sending messages directly to one or several other persons is spreading like wildfire through the local government market, Gardner says.

"Electronic mail is the latest craze because of the high level of paper chasing in local government," she says. "Add to that the number of missed messages, and you see why a system where you don't have to wait to send messages is popular."

According to the Sperry report, nearly 66 percent of public officials surveyed used word processing, the oldest

Fort Wayne DPW Adopts Software-based System

By Alan K. Wong, David J. Vaclavik and David Hiatt

Like many other Midwestern cities, Fort Wayne, Indiana, entered the 1980s with a troubled economy, limited resources, and the need to maintain and improve an infrastructure past its prime. Much of the sewer system was constructed with brick in the 1800s, and although the water distribution system and street network were newer and in better condition, significant investment in maintenance and capital improvements was required.

The problem facing Fort Wayne is not unique. How can available resources be used effectively to provide public works services to current and future residents of the city?

Mayor Win Moses has sought to prioritize time- and cost-effective public works services. The key to the program is quick response to resident complaints and emergencies. Under Moses' direction, a Citizen's Advocate Office was established to manage complaints by routing them to the appropriate division within the Department of Public Works (DPW) for action.

This aggressive policy of attention to citizen concerns has corrected many public works problems effectively. Fort Wayne officials, however, realized costs could be cut and services improved by preventing problems — not just reacting to them. "We want to implement an infrastructure management system as a cost-efficient action," says Moses. "We can save considerable dollars by knowing where the problems are in our streets, sewers, and water mains as they happen."

Because of the varied recordkeeping systems used by different DPW divisions, information collected and reported is difficult to analyze. This, in turn, hinders effective and accurate public works capital planning. Recognizing the benefits of improved information management, Fort Wayne set several goals.

First, each division within the DPW would gain access to computers for engineering and office automation applications, such as word processing and electronic mail. The DPW had used the county computer system, which was already being utilized fully. Fort Wayne needed to acquire or gain access to a new system. Second, a method of computerizing all public works facility information kept on paper was required. Third, the DPW wanted its various divisions to be able to share facility information readily. Finally, DPW management wanted the ability to track job costs by type of work or area of the city.

To meet these goals, Fort Wayne installed the INFRAWORKS system, a software-based engineering tool that geographically inventories a city's public works facilities and their complete historical records. Systems were designed for various city divisions. New information forms were based on existing paper records and on an analysis of what information benefits the maintenance and engineering divisions.

The key to developing and implementing a computerized information management system is staff acceptance. In Fort Wayne, representatives of each DPW division are helping design their own system. As much as possible, the system is being designed around current operating policies and procedures, and using existing facility information gathered and analyzed by current public works employees.

Comprehensive, accessible information on facility cost and maintenance history will aid Fort Wayne's decisions on repair and replacement. This knowledge is perhaps the greatest benefit of the system, providing support for each DPW division to make budget and capital improvement decisions. ☐

Alan K. Wong is a vice president and David J. Vaclavik is a project manager with Camp Dresser & McKee, and David Hiatt is project manager of data processing for Fort Wayne, Ind.

office automation function. Almost 43 percent generated reports using specialized software to process data into information, while 21 percent used electronic filing/retrieval and scheduling capabilities. Only 13 percent used electronic mail and electronic calendars.

Governments already utilizing electronic mail applications tend to be those that converted to computerization early. Cities that are more computer-oriented have a jump on their neighbors, both in technology and efficency. In Marietta, Georgia, administrative assistant Douglas Smith says the city is very well run due to its computer automation.

"Marietta is very computer-oriented. It has taken a lot of work off the typewriters," Smith says. "We use computers among many departments. I may be at a terminal now, and before me someone from the tax department may have sat here working on a tax parcel. Every department in the city is strong on computer usage."

Marietta does not have the electronic mail application yet, Smith says, but is studying the option and will likely implement the technology within 10 years. The city currently is examining computerized mapping. And that is another new trend causing a great deal of excitement in the local government market, Gardner says.

"Geobase, or a geographic database, allows all department heads to access data from a centralized database," she explains. "All people need access to a common database, but each will have unique applications. With a geographic database, you end up increasing productivity."

Large amounts of money spent by municipalities updating maps, as well as the lag situation involved in the map-

Fall-River Computers Fuel Fiscal Health

The flight or decline of traditional industries such as fishing and textiles, the move of businesses and homeowners from the central city, and the decline in real estate values that erodes the tax base are common problems in many communities.

In the case of Fall River, Massachusetts, the additional challenge of Proposition 2½ exists, a law limiting property taxes to 2½ percent of assessed value. "It was clear the city needed to use every modern technique and technological weapon available to increase the level of services and decrease costs," says Mayor Carlton Vivieros.

The city investigated computer technology to save costs. In 1980, the mayor set up a task force to examine the benefits of automation. This group, made up of local business people and other professionals with a wide range of expertise, remains in operation today, seeking new ways to improve city services. Dan Rapoza, assistant to the city administrator, was named data processing coordinator, overseeing the implementation of the new system when selected.

After preliminary investigation, the task force concluded that a wide range of city departments would benefit significantly from automation. Clearly, the single overriding need was to obtain software designed specifically for municipalities, and containing a wide range of interactive modules to address all the financial and administrative areas.

Computer hardware was of secondary importance, as long as it met current needs and would permit future upgrades without changes to the software or retraining of users.

Several vendors presented proposals, with the contract awarded to Infocel, a Raleigh, North Carolina, company. "Their software met our criteria very well, but their on-site facilities management approach was the deciding factor," Rapoza says. "We felt no one in Fall River government had sufficient background to allow us to purchase a computer, get it on-line, and also maintain the necessary coordination within the government structure."

The facilities management approach meant the vendor would not only supply and install the chosen hardware and software at a data center in Fall River's main government building, but also would supply the personnel to staff the center.

Fall River took a phased approach to implementing the new system. The Water Department was among the first users because its staff already was familiar with computers. Additionally, Fall River recently had begun charging a sewer use fee, and the department was facing an enormous number of inquiries from residents who were confused and anxious about their bills. The new system permitted instant, on-line account summaries to be printed, which assisted residents in understanding their accounts.

The second major area brought into the new system was voter registration and census at the Board of Elections. Input operators were obtained under several federal training grants at no cost to the city. The operators gained the required on-the-job experience and city employees were able to continue with the business of government. Although this method required review and correction by the department head, massive amounts of data were entered expeditiously into the system, at the least cost to the city.

Computer assistance now has penetrated virtually every area of the city government. In addition to water and sewer, and the Board of Elections, other applications include accounting modules in both the auditor and school administration offices, license-tracking systems in the Milk Inspector and Health departments, and financial planning systems in the comptroller and school buildings and grounds offices.

The use of an on-line, multi-department computer system has benefited Fall River in numerous ways. For instance, the voter lists, once requiring as much as 12 weeks to compile, now can be generated overnight. Time-consuming searches through thousands of census cards and dozens of voter registration ledgers have been replaced by a simple inquiry process on a video terminal.

In the financial management area, collections have increased 5 percent under the new system. In addition, financial reports are completed as much as a month earlier than before, giving better fiscal control. Payments to local vendors also have been speeded, resulting in discount opportunities and lower bids.

The ability to stagger billing for water and sewer services has resulted in a more stable income stream. The new system also has enabled the department to pursue delinquencies more systematically, resulting in a decrease in bad receivables.

City officials also are sold on the advantages of getting the computer staff from the company that wrote the software, since they will be thoroughly familiar with the product. Another plus is having the data center in the same building, and not at a remote site reached through telecommunications. ☐

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ping process, have contributed to the success of geobase, Gardner says. "The cities often have a map that's not reflective of what's going on in the city. So, this idea (geobase) is receiving a great deal of interest."

The expense of such a system often deters use by small communities. But these areas often are able to form conglomerates to purchase and operate the mapping system. But the newer equipment on the market is not the only high-cost item for local governments that own computer systems. Basic start-up costs, as well as system maintenance, often can be expensive.

The Sperry report says one-third of the local governments contacted believe present systems are too expensive, so "vendors must continue the industry trend of increasing performance while lowering price before the public sector will be able to purchase what they need," the report says.

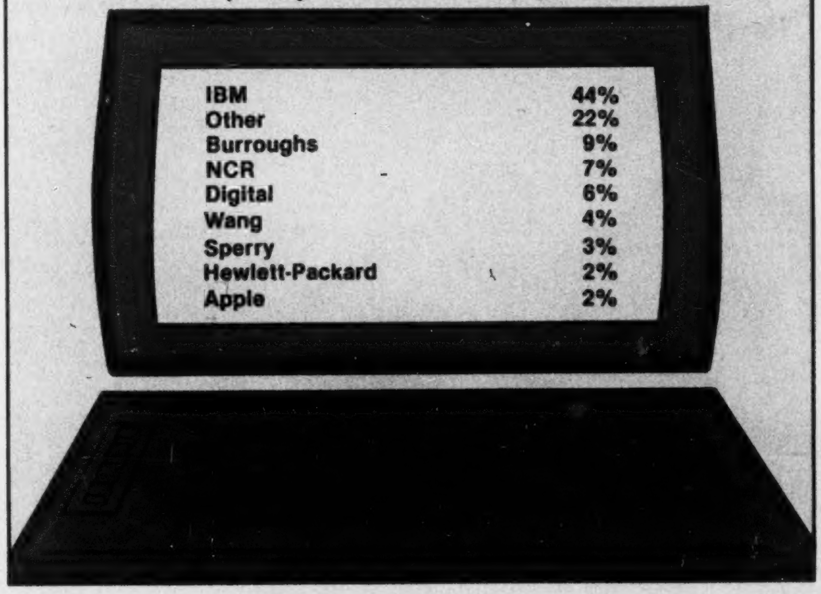
Marietta has spent $400,000 on its Sperry system, Smith says, but the city "pretty much has all the big stuff. In five years, though, it may be outdated, and we'll check into updating our equipment then. Our initial outlay is complete, though."

And with computerization growing, the amount being spent on systems is increasing. Seventy-eight percent of the *American City and County* survey respondents said they spent at least $50,000 on computers in fiscal 1986, and the same number said they would spend that much again in 1987.

In Avon, the city's computer operations will become entirely in-house this year. The city has budgeted $93,000 to complete equipment purchasing, Schenck says, which will include personal computers, terminals, and a central processing unit.

"We began automating with our tax billing in the mid-70s, and by 1982, we

Who is the primary manufacturer of equipment you use?



IBM	44%
Other	22%
Burroughs	9%
NCR	7%
Digital	6%
Wang	4%
Sperry	3%
Hewlett-Packard	2%
Apple	2%

1986 budget for computer equipment purchases:

$50,000 or less	78%
$50,000 to $249,999	11%
$250,000 to $499,999	3%
$500,000 to $999,999	3%
Above $1,000,000	1%

1987 budget for computer equipment purchases:

$50,000 or less	78%
$50,000 to $249,999	8%
$250,000 to $499,999	3%
$500,000 to $999,999	2%
Above $1,000,000	.3%

were moving into our own system. This year, we will have everything in-house," he says.

One facet of the computer boom in local government is a willingness to share information, Gardner says. As cities automate, they often pass along the names of vendors or companies to their neighbors, she says. "They are very responsive to helping each other. When they are happy with a system, they let others know."

This internal referencing also offsets the cost of a new system, since a municipality that can see productivity improvements will not be as balky at paying the price. Although costs can be high for computerized systems, the results are usually worth the effort, according to the survey. Forty-five percent of the respondents said productivity improved from 5 to 20 percent following computerization, with 16 percent registering a more than 25 percent improvement.

"It's sort of a mushroom theory," Gardner says. "They start with one or two systems, then they throw a little water, or applications on them, and soon there are a whole lot more popping up."

The statements of increased productivity are hardly surprising, Smith says. "Before, councils would not be interested, but now they're buying computers. They have seen what computers can do for productivity," he says.

"There's no doubt about it, the computers will increase productivity," Schenck adds. "Not in terms of people, but the productivity improvement comes in terms of cost avoidance, accuracy and sophistication. By having better information available, there is better management."

Because of the size of the local government market, there are often gaps in computer sales. The market "goes in spurts," says Crago. "Unless they are in the top 25 or 50 cities and counties, expect data processing not to be on a high level."

"From our point of view, we don't see much difference in upgrading trends between commercial and municipal systems," adds IBM's Monroe.

With continuing expenditures in office automation, manufacturers also will be spending more time on products aimed at the local government market, such as electronic mail and geobase. Clearly, with such a potentially viable market existing, rapid strides in government technology should be forthcoming.

With governments moving into automation, and computer vendors making headway with sales and technology, the rush seems to be on for local government computerization. And with the right precautions, the rush may be a gold mine. ☐

Automation Eases Anxiety For Houston Employees

Automating a big city government is no easy task, but officials in Houston, America's fourth largest city, are successfully making the transition without creating a wall of anxiety around municipal employees.

"It was a major step," says Larry Yium, manager of finance and administration for Houston's Water District. "Most sections still use IBM typewriters, and we are trying to bring in automation that will not isolate them. They have had their typewriters for 15 years."

The problem, according to city officials, was the sheer volume of paperwork. Due to the city's explosive growth, the department had been grappling with thousands of records that had to be updated and maintained by hand, including processing more than 250,000 building permits per year. To deal with the overwhelming task of records management, the city utilities department decided to automate certain department functions, increasing the efficiency of existing support staff and reducing expenditures.

To remedy the logjam, two Wang minicomputers were purchased. Installed initially as a base system for data and word processing, the equipment is being expanded continuously to handle emerging needs.

Yium says it is too early to measure the cost reductions in the department's operation. The hiring of additional personnel has been prevented, however, by making the workload more tolerable for current staff members.

"We have been able to keep from hiring that second person we needed to get the job done," Yium says. "We also have been able to free people to do other things that need to be done, since we now can find the time."

The productivity boost was demonstrated when the water district wanted to revise its capital improvements projects, and perform a rate analysis for its 385,000 customers.

"Without computers, the work would have taken a week and a half," Yium says, "but with the system we have and a couple of people, we completed it in one afternoon."

When the system is fully installed, capabilities will be expanded to include the Compaq and Televideo personal computers and Toshiba printers the city has been using for file management and spreadsheet analysis. Yium says the expansion also will include installation of an optical reader to enable people still using typewriters to be fully integrated into the electronic network.

The now-completed installation was phased in slowly to ensure that unplanned glitches in the system could be solved before moving on to other areas.

"We have had complete installations before, and they turned out badly. We found out the system was not as user-oriented as we thought because it required programming that most untrained people find very difficult," Yium says.

The phase-in program, which required detailed planning by the vendor and the city, helped anxious employees absorb and master the complexities that accompany any major automation, he adds.

"The process generated interest, built up the confidence level of the people who would use it, and allowed us to work out the bugs," Yium says. "The installation also was 'user informed.' The people who would use the equipment were told where and when the system was going to be installed, and were thoroughly educated on its use as the process continued."

The gradual modernization also prevented costs from rising, since potentially defective or improper equipment could be replaced before being installed fully.

Timeliness is the main benefit of the new system, explains Yium. The word-processing equipment included with the system increased the dependability of recordkeeping, reduced record loss and increased system uptime. Other projects were accomplished quickly since department documents did not have to be typed more than once.

Houston is planning for the future. Computers soon may be making life easier for employees who work with city vehicle maintenance, personnel records, and road and bridge construction. The automated network will be involved heavily in project planning, and will help manage the city's capital improvement projects, which currently average $2.5 billion. ☐

MUNICIPAL COST INDEXES

The **Municipal Cost Index** posted a slight loss for July, as did the **Consumer Price Index** and the **Producer Price Index**. The **Construction Cost Index**, however, rose almost three points, climbing to 372.6.

In this month's marketbasket, the fuel oils family continued to slump, with both gasoline and diesel fuel almost 40 percent below last year's figures. ☐

—*Joe Morris*

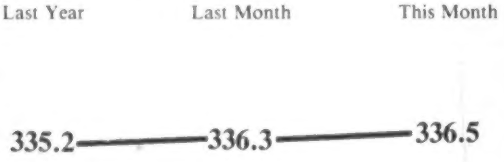
These figures are calculated on a base year of 1967.

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	148.7	.1	1.2
Apparel	184.6	.4	1.5
Asphalt Roofing	395.4	−1.2	−4.0
Books	138.4	.4	5.4
Chemicals, Industrial	324.6	−3.2	−3.4
Coal	540.2	.1	−1.4
Concrete Products	327.0	.5	3.3
Construction Machinery	366.1	.1	1.2
Diesel Fuel	394.5	.4	−38.2
Electric Components	200.5	.2	1.2
Electric Lamps	348.2	−.9	2.8
Electric Power	453.8	−1.0	−1.0
Engines, I.C.	353.0	1.0	3.4
Fans, Blowers	362.8	−.1	1.1
Fertilizers, Mixed	255.6	1.1	−1.8
Floor Coverings	194.4	.3	.8
Flow Instruments	234.4	−.2	1.0
Footwear	262.7	.5	3.0
Foundry Products	365.3	.1	.7
Fuel Oil No. 2	419.6	−5.3	−37.9
Furniture	315.8	.4	3.1
Gasoline	340.5	−8.3	−37.5
Generator Sets	349.7	.1	−.3
Glass	230.0	.2	3.4
Glass Containers	394.2	1.5	5.3
Gypsum Products	345.1	−1.7	3.5
Hardware	305.5	−2.0	−.1
Heating Equipment	267.3	1.0	3.6
HVAC Controls	127.1	1.5	4.2
LP Gas	374.2	−17.0	−29.4
Lubricants	377.5	−1.0	1.4
Lumber	307.5	.5	−1.5
Metal Fabrications	315.1	0.0	.2
Millwork	315.4	.5	1.9
Motor Vehicle Parts	358.4	−.1	1.1
Mowers	263.6	0.2	0.8
Natural Gas	1254.6	−5.6	−9.5
Office Machines	154.3	.3	−.3
Paint	280.8	.3	1.7
Paper	303.4	.6	0.0
Passenger Cars	232.8	1.6	2.9
Plumbing Fixtures	322.6	−.6	3.6
Plywood	244.7	5.3	9.8
Portland Cement	360.7	.4	.3
Residual Fuel	558.2	−16.1	−48.7
Sand, Gravel	316.7	.5	2.9
Sanitary Papers	381.1	−.1	1.7
Soaps, Detergents	273.5	−1.1	.2
Sporting Goods	204.6	.3	−.1
Steel Mill Products	346.2	−.1	−5.7
Struc. Clay Products	307.0	0.7	5.0
Switchgear	285.7	.7	1.8
Tires, Tubes	236.3	−.1	−1.0
Transformers	234.6	.1	.6
Trucks	340.4	.1	2.2
Valves	107.2	.9	2.8
Wire, Cable	207.2	.3	1.8
Wiring Devices	372.6	0.0	3.4

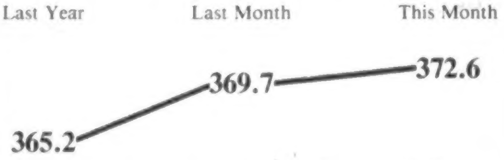
At-A-Glance Changes

MUNICIPAL COST INDEX



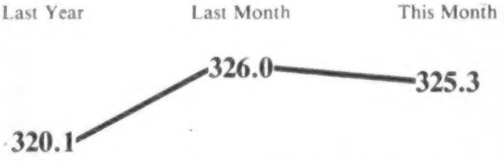
Percent Change From Last: Month **.06** Year **.4**

CONSTRUCTION COST INDEX



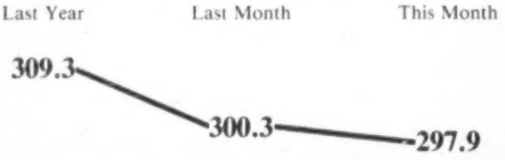
Percent Change From Last: Month **.8** Year **2.0**

CONSUMER PRICE INDEX (BLS)



Percent Change From Last: Month **−.2** Year **1.6**

PRODUCER PRICE INDEX (BLS)



Percent Change From Last: Month **−.8** Year **−3.7**

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year
Receipts	589.1B	1.3	6.3
Federal Grants	109.6B	7.5	14.5
Durable Purchases	20.8B	1.0	6.1
Consumables	38.3B	−4.0	1.9
Services	364.0B	1.9	7.8
Structures	55.6B	−1.0	16.1
Salaries, Wages	292.2B	1.8	7.5
Surplus	58.8B	3.3	−10.6
Employment	13.632M	−.01	2.6

Toledo's Donna Owens • The Leasing Alternative

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Resource Recovery:

The Specter Of Dioxin

A Publication of Communication Channels, Inc.

AMERICAN CITY & COUNTY

administration · engineering · operations

August 1986

Vol. 101, No. 8

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About the Cover

The resource recovery industry has been hindered in recent years by the discovery of dioxin, a man-made chemical thought to promote cancer, in smokestacks. New research, however, is helping resource recovery vendors in their fight for credibility. (Photograph by John Carter of Atlanta.)

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Suing Over Sewers

By Cathy Dombrowski

As many as several thousand local sewage treatment plants may fail to meet the July 1, 1988, deadline for installing secondary treatment, but the message from Washington is that the deadline will stick. During the past few months, Environmental Protection Agency officials have stressed publicly the reality of the deadline, publicizing recent lawsuits against sewer agencies and predicting that more are on the horizon.

Filed as part of a municipal enforcement initiative, the suits are intended to demonstrate the agency's commitment to the secondary treatment deadline, says EPA Assistant Administrator Lawrence Jensen. Although there are 1,325 major facilities and 3,400 minor publicly owned treatment works (POTW) that will have to construct additions or improvements to meet the deadline, Jensen insists, "I remain absolutely committed to this date." Major POTWs are those treating more than 1 million gallons per day of wastewater.

Local representatives are concerned most about cases in which non-compliance with the deadline is the result of financial difficulties stemming from cutbacks in federal aid and the proposed phaseout of sewage construction grants. Even before the government ends financial assistance, many sewage authorities are having trouble raising their 45 percent share of construction costs under the current grant system, says National League of Cities' Executive Director Alan Beals. "While we would support legal action against those who blatantly violate the law, fining a city or putting officials in jail will do nothing to accomplish the goal, which is cleaner water, especially in those communities where the main reason the city can't comply is because no money is available to help cover the costs," he says.

Federal Water/Wastewater Spending

Program	Fiscal 1980	Fiscal 1987	Change
Farmers Home Administration Water/Waste Disposal Program	$990 million	$0 million	−$990 million (−100%)
Economic Development Administration	$582 million	--0—	−582 million (−100%)
Environmental Protection Agency Construction Grants	$3.4 billion	$1.8 billion	−1.6 billion (−29%)
Corps of Engineers (civil works program — construction funding only)	$1.66 billion	$1.05 billion	−.61 million (−36%)
Bureau of Reclamation (construction budget only)	$213.5 million	$576.8 million	+363.3 million (+170%)
TOTAL	**$6.84 billion**	**$3.43 billion**	**−3.41 billion (−50%)**

Jeffrey Schiff, acting director of the National Association of Towns and Townships, says "it is a problem that our members have been left out of the loop in terms of financial aid," and that many NATaT members "feel they have been ignored because of the federal emphasis on large collector systems."

But insufficient federal aid is a problem even for larger sewer districts. In a survey of members of the Association of Metropolitan Sewerage Agencies (AMSA), 18 of 55 respondents reported their compliance with the 1988 deadline is contingent on federal funding of $2.4 billion per year. However, EPA has yet to appropriate all the allocated fiscal 1986 funds. A supplemental appropriation bill providing $1.2 billion has been passed but President Reagan has threatened a veto. Even if he signs the bill, the supplemental money, when added to the $600 million released last December, is only 75 percent of the amount needed and will be available only after much of the construction season is over in some areas of the country.

Efforts are being made to seek language from Congress specifying that compliance with the 1988 deadline will be contingent on the availability of federal funding. Some House members have indicated a willingness to consider this proposal as part of the Clean Water Act reauthorization, according to Roxanne Grahams of AMSA. But George Ames, acting director of EPA's Office of Water Policy, says the courts already have upheld that sewage treatment is a municipal responsibility and not linked to federal funds. "The date is there," Ames says. "I don't see movement on the Hill to change it. We don't want to see it changed. Clearly, we should get going to make the deadline."

Jensen adds, "I am aware of those who suggest that the phaseout is contradictory to some of the statutory clean water goals set in the act. You've heard it before, and you'll hear it again, compliance with the Clean Water Act has never been dependent on federal funding." Even for smaller communities, which are low on the priority list for distributing the limited federal grants that remain, Jensen says, "We remain committed to the goal and we're going to accomplish as much as we can."

The impact of widespread non-compliance on the federal enforcement effort is uncertain. Schiff suggests the agency does not have a mechanism to carry out its threats. Ames concedes EPA will have to deal with non-compliance as best it can. "Obviously, if the problem is too big for our resources to handle, we'll have to be selective in taking action," Ames says. "The key thing is to get communities on a schedule."

Ames is quick to point out that EPA is not just intent on taking people to court. The agency has initiated efforts to provide technical assistance to sewer districts and inform them of financial alternatives. Last year, he says, more than 600 facilities with operating deficiencies were brought into compliance with federal standards following agency assistance. Schiff says his group has developed literature to inform local officials about technical treatment technologies, alternative financial techniques, as well as how to work with consultants and how to protect their investment once a plant is built.

On an optimistic note, Jensen predicts that state and local programs will be able to take over the burden of sewage treatment. "I recognize the serious strains which a transition to self-sufficiency puts on states and localities," he says. "However, while there is justifiable uncertainty about how quickly the federal government will get out of the wastewater finance business, there is no question that it is getting out. I am hopeful that 'defederalization' in the finance area will not lead to the 'deinstitutionalization' of state and local programs, and that our common commitment to clean water will override these institutional and financial hardships, however severe." ☐

MUNICIPAL COST INDEXES

The **Municipal Cost Index** for August rose almost two points, climbing to 338.2. The increase was spurred by increases in the **Construction Cost Index, Consumer Price Index** and **Producer Price Index**, each rising more than one point.

This month's marketbasket continues to show dramatic declines in the fuel and oil family, with the largest being diesel fuel, which fell more than 7 percent from last month and almost 50 percent since last year. Gasoline, however, rose for the first time in several months, climbing by 11 percent.

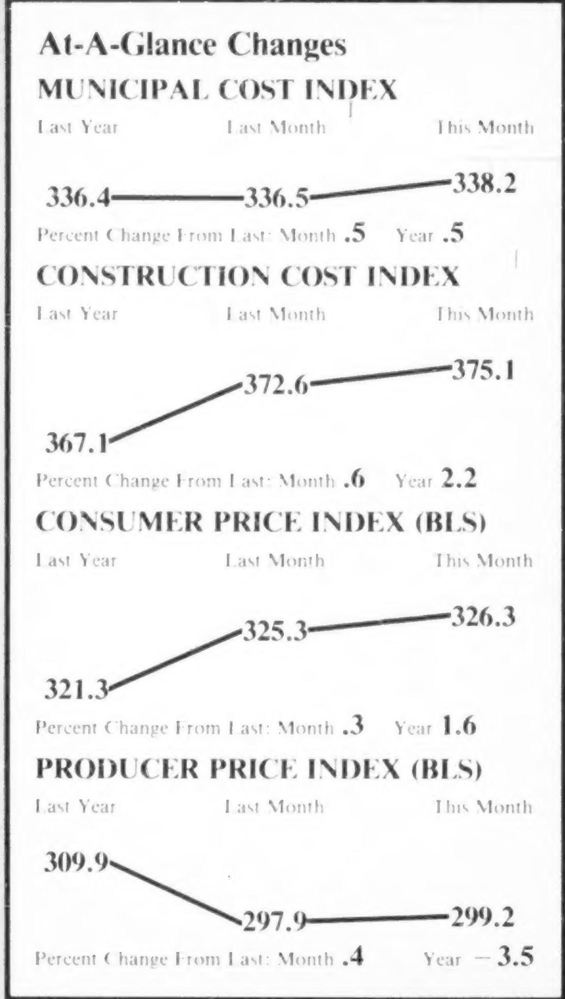
These figures are calculated on a base year of 1967.

— Compiled by Joe Morris

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	148.9	.1	1.1
Apparel	186.7	1.1	2.6
Asphalt Roofing	394.7	−.2	−4.3
Books	138.4	0.0	5.3
Chemicals, Industrial	319.6	−1.5	−5.0
Coal	538.5	−.3	−1.8
Concrete Products	326.2	−.2	1.9
Construction Machinery	366.3	.1	1.2
Diesel Fuel	363.8	−7.9	−45.0
Electric Components	200.6	0.0	1.6
Electric Lamps	346.1	−.6	.5
Electric Power	455.2	.3	1.6
Engines, I.C.	352.5	−.1	3.6
Fans, Blowers	363.0	0.1	1.1
Fertilizers, Mixed	254.9	−0.3	−2.1
Floor Coverings	194.8	.2	1.7
Flow Instruments	235.4	.4	1.5
Footwear	261.8	−.3	3.2
Foundry Products	364.8	−.1	.6
Fuel Oil No. 2	406.7	−3.1	−42.1
Furniture	316.3	.2	3.0
Gasoline	378.7	11.2	−34.3
Generator Sets	351.8	.6	0.0
Glass	230.1	0.0	2.3
Glass Containers	399.6	1.4	6.1
Gypsum Products	360.3	4.4	8.2
Hardware	305.7	.1	0.0
Heating Equipment	266.8	−.2	2.8
HVAC Controls	126.6	−.4	2.8
LP Gas	337.2	−9.9	−36.9
Lubricants	366.8	−2.8	1.8
Lumber	308.3	.3	.1
Metal Fabrications	314.9	−.1	.1
Millwork	316.8	.4	2.0
Motor Vehicle Parts	358.4	0.0	1.1
Mowers	263.7	0.0	.8
Natural Gas	1274.5	1.6	−11.1
Office Machines	154.1	−.1	−.4
Paint	280.9	0.0	1.7
Paper	304.3	.3	−.1
Passenger Cars	233.3	.2	2.3
Plumbing Fixtures	322.9	.1	3.3
Plywood	240.3	−1.8	3.5
Portland Cement	355.5	−1.4	−2.7
Residual Fuel	523.1	−6.3	−50.6
Sand, Gravel	317.3	.2	3.0
Sanitary Papers	383.0	.5	1.8
Soaps, Detergents	273.9	.1	.2
Sporting Goods	205.1	.2	.2
Steel Mill Products	348.7	.7	−5.0
Struc. Clay Products	307.3	.1	5.0
Switchgear	286.0	.1	1.7
Tires, Tubes	235.7	−.3	−1.4
Transformers	232.7	−.8	.1
Trucks	344.0	1.1	3.2
Valves	106.6	−.6	2.0
Wire, Cable	206.9	−.1	1.3
Wiring Devices	373.0	.1	−3.1

At-A-Glance Changes



MUNICIPAL COST INDEX

Percent Change From Last: Month .5 Year .5

CONSTRUCTION COST INDEX

Percent Change From Last: Month .6 Year 2.2

CONSUMER PRICE INDEX (BLS)

Percent Change From Last: Month .3 Year 1.6

PRODUCER PRICE INDEX (BLS)

Percent Change From Last: Month .4 Year −3.5

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year
Receipts	602.3B	2.2	7.5
Federal Grants	111.0B	8.8	16.0
Durable Purchases	20.8B	.97	6.1
Consumables	37.9B	−5.0	0.8
Services	364.2B	3.7	7.8
Structures	55.9B	2.2	16.7
Salaries, Wages	292.2B	1.8	7.5
Surplus	64.6B	9.9	2.2
Employment	13.620M	−.01	2.4

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SEPTEMBER 1986

AMERICAN CITY & COUNTY

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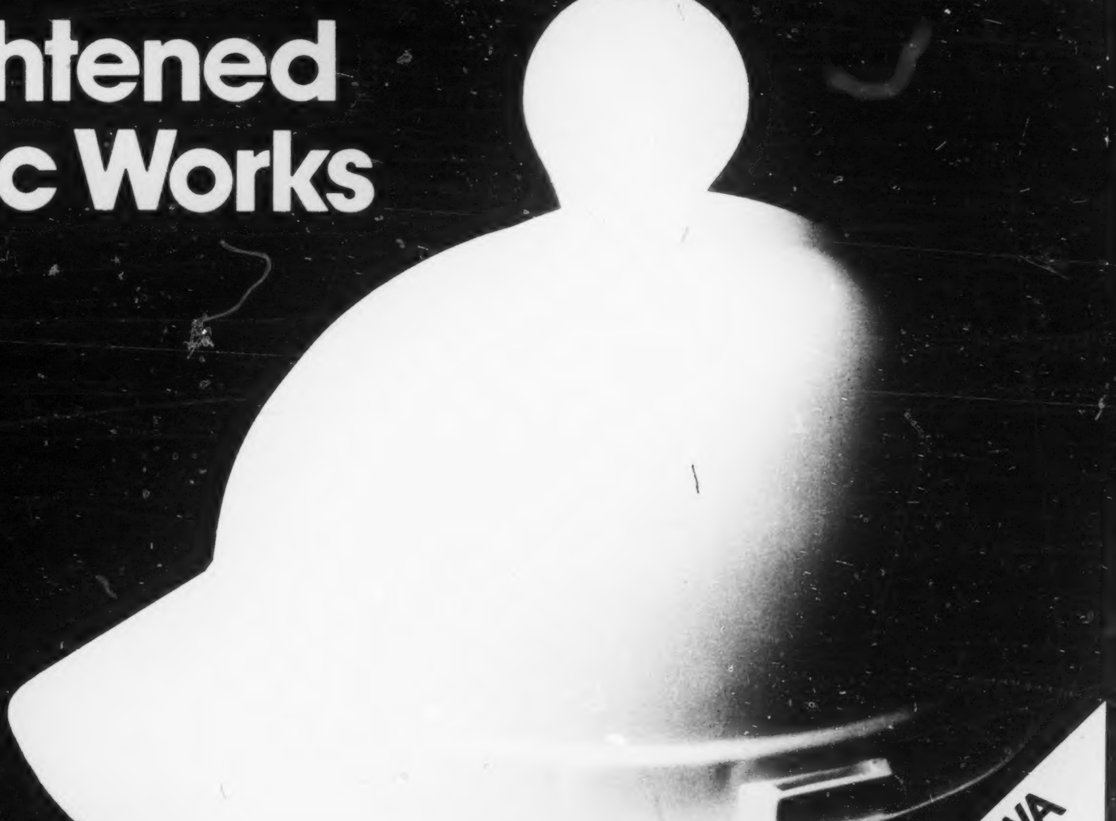
Profile: APWA's Carl Wills

Facing the Wastewater Challenge

Enlightened Public Works



Special APWA Convention Preview

A Publication of Communication Channels Inc

AMERICAN CITY & COUNTY

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administration · engineering · operations

September 1986

Vol. 101, No. 9

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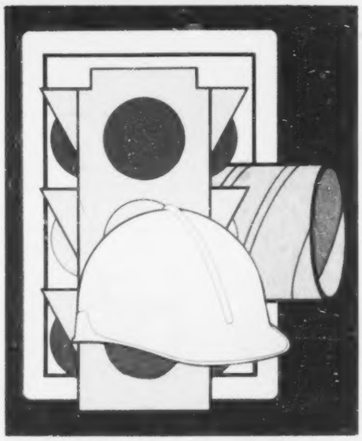

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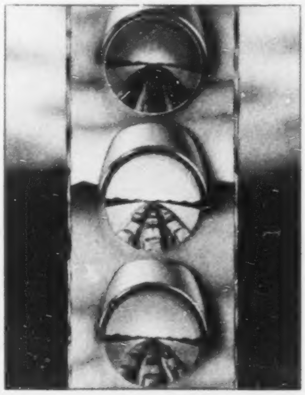
The public is no longer the benign and silent recipient of services. Enlightened public works officials have involved citizens in the planning, delivery and support of these services, creating allies within the community. (Photograph by Terri Teague of Atlanta.)



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Facing The Challenge

As the federal government phases out its financial role in providing wastewater treatment facilities, local governments are taking on more responsibility.

Photograph courtesy of Envirex

Today, public officials are in the midst of a transitional era in which federal construction grants are being phased out and states and municipalities are regaining lead responsibility in providing for wastewater treatment needs. States, localities and the U.S. Environmental Protection Agency (EPA) are redefining their roles in a partnership committed to continued pursuit of national water quality goals. The critical challenge for states and municipalities is to continue to attain and maintain compliance during and beyond the transition of the federal grants program.

This is a multi-faceted challenge for many communities. Even as grants are being phased out, the July 1, 1988, deadline for compliance with the Clean Water Act is approaching rapidly. According to EPA, 1,325 major and 3,400 minor publicly owned treatment works in the United States need construction to meet statutory requirements. That translates into a lot of still-polluted water being discharged into streams, rivers and lakes.

More than 15 years ago, the United States made a national commitment to tackle this challenge aggressively. Wide public support and bipartisan consensus in Congress resulted in enactment of the Clean Water Act (CWA) in 1972. The act provided for a strong initial fed-

---

Communities now are facing lawsuits over failure to comply with wastewater treatment standards, and the Environmental Protection Agency foresees no extension of the 1988 compliance deadline. In this article, EPA Assistant Administrator of Water Lawrence Jensen gives the agency's view of this controversial and rapidly developing problem.

By Lawrence Jensen

Nassau County Modifies Plant with MOPO Plan

By John F. Caruso, Joseph A. Husband and Paul L. Busch

Planning a modification program for an existing wastewater treatment plant often requires far more effort than building a new facility. Construction phases must be prioritized and planned carefully, so everyday plant operations are not disrupted.

Nassau County, New York, has approached the $200 million modification of the Cedar Creek Water Pollution Control Plant in Hempstead with a priority planning strategy designed to accommodate contractors and residents. Cedar Creek was designed originally to provide secondary treatment for 45 mgd of wastewater from southeast Nassau County. Now receiving above-design flows, the plant must be upgraded to treat 76 mgd by the year 2005. To complicate the project, complaints about odor have increased.

An overall facility planning report was written by Camp, Dresser & McKee, evaluating and recommending current and future wastewater facility needs. The renovation was divided into 10 construction phases, each with a different contracting team, to allow uninterrupted plant operations and limit the number of construction workers entering the park each day. The county used a flexible approach called MOPO — Maintenance of Plant Operations — to plan and design project phases and, within individual contracts, to establish construction sequences. The purpose of MOPO is to minimize potential adverse effects of new construction on plant operations, and to anticipate as many problems as possible before construction begins.

To coordinate MOPO strategy with Cedar Creek's regulatory, financial, physical and operational constraints, the county contracted Malcolm Pirnie Inc., an engineering firm, and other specialists such as Charles F. Vachris Consulting Engineers (foundation and excavation), O'Brien & Kreitzberg Associates (detailed costs) and Product Control Associates (construction schedule). Working with county representatives, a program was developed consistent with the ever-changing funding availability and continual reevaluation of operating information.

"We required a team that could look beyond the nuts and bolts of design," explains Frank J. Flood, the county's director of environmental engineering. "It had to be aware of other non-technical issues such as, how do we keep Cedar Creek a good neighbor to the surrounding community during construction, and how will this new construction affect the operations of the facility?"

"The designers on the Cedar Creek plant have been very good in requesting and using information from the operations group, and in keeping us informed of what is being planned," notes County Director of Environmental Operations James A. Oliva, "This will benefit the project immeasurably during construction and with less confusion and less interference by the contractors on our operation of the plant."

The first two construction phases at Cedar Creek are geared toward improving the reliability of the existing wastewater and solids-handling facilities, and controlling odors at the existing influent pump station, grit-handling and digester complex. During the third construction phase, the energy-intensive equipment (blowers and engine generators) will be improved, and the aeration tanks and secondary clarifiers built.

The aeration tanks will be constructed before the new primaries because they will yield a greater improvement in effluent quality. Similarly, additional power availability is necessary before major new power-using equipment, particularly the aeration tank blower, can be installed and operated.

Thus far, with about half of the program in various stages of bidding and construction and the other half waiting for future funding, Nassau County has found MOPO to be working well in helping the Cedar Creek construction program come in on-schedule and within budget — while keeping operations under control. ☐

John F. Caruso is deputy commissioner of public works in Nassau County, N.Y. Joseph A. Husband is project engineer and Paul L. Busch is vice president and director of wastewater activities for Malcolm Pirnie Inc., White Plains, N.Y.

eral role to catalyze effective and rapid implementation of this ground-breaking legislation. The nation's waters were fouled and an extraordinary infusion of funds was necessary to help municipalities catch up with the huge backlog of unmet wastewater treatment needs.

During the 1970s, EPA funded billions of dollars of wastewater treatment projects, wrote the regulations, set minimum standards, issued the permits, and funded monitoring and enforcement work involved in assuring compliance with the enforceable requirements of the act. During this period of intensive federal spending, states were building staff and technical expertise that resulted in the capable administration of their environmental programs. Today, 49 states have the lead role for day-to-day administration of their construction grants programs.

Reflecting this increased state water quality program management capability and the need to reduce the federal deficit, the 1981 amendments to the Clean Water Act confirmed and accelerated the transition from intensive federal involvement to greater state and local self-sufficiency. While needs for wastewater treatment remain high, the initial or subsequent amendments to the CWA were never intended to keep the federal financial assistance program operating forever.

Legislative history shows that even while the CWA was being written in 1972, Congress conceded that funding levels would be "subject to the usual presidential responsibility for evaluating these needs in relation to other national priorities." Congress further specified that "funding provisions dealt with the need to catch up with the backlog of wastewater construction needs and that municipalities would be expected to provide for operation, maintenance, expansion and replacement of their treatment works through user charges."

This principle was reinforced in the legislative history to the 1981 amendments that stated, "It is important to avoid giving states and municipalities the impression that federal funding will be available in perpetuity to meet all of these localities' described needs." And so, the 1981 amendments reduced the federal contribution from 75 percent to 55 percent for most projects, tightened eligibilities to focus on municipalities with the most pressing treatment needs for existing populations, and reduced the overall funding level for the program.

The federal role also narrowed due to the growing influence of external forces on a program that had operated for years relatively unaffected by major trends occurring within government and across the nation. Specifically, these trends included deficit-reduction ef-

Revolving Loan Programs

Currently, 12 states are operating state revolving loan programs to finance wastewater treatment facilities and other infrastructure needs. The U.S. Environmental Protection Agency's Office of Municipal Pollution Control has compiled the following analysis of these 12 programs.

Sources of funding and the needs of each of 12 states with State Revolving Fund Programs (in millions of dollars)

State	State Appropriation	State* Authorization	1984 Eligible Needs	Future 2000 Unrestricted Needs
	$	$	$	$
California	0.0	250—G.O.	4,140	6,674
Georgia	20.0 —Initial	0	989	1,652
Montana	0.0	250—Rev. 5—G.O.	61	87
New Jersey	0.0	190—G.O.	4,562	4,934
Ohio	100.0 —Initial	0	4,400	5,075
Oklahoma	25.0 —Initial	52—Rev.	395	655
Texas	0.0	600—G.O.	2,733	4,770
Utah	22.5 —Initial	300—G.O.	377	718
Virginia	0.5 —Initial	300—G.O.	1,305	1,670
Washington	20.0—Annual	0	2,888	3,781
West Virginia	8.9 —Initial 5.0—Annual	0	1,903	2,084
Wyoming	100.0 —Initial 15.0—Annual	60—G.O.	36	66
Subtotals:	276.9 —Initial 40.0—Annual	302—Rev. 1,705—G.O.		
TOTALS:	**$316.9**	**$2,007**	**$23,789**	**$32,166**

***Total borrowing authorized since beginning of operation.**

forts, tax reform, and a general move to greater state and local responsibility and control.

With these developments, the federal leadership in wastewater treatment clearly showed limited effectiveness. The attainment of state and local financial self-reliance was seen increasingly as a necessary, though challenging, outcome of the program's final years. Ultimately, responsibility for municipal wastewater treatment would have to resume its appropriate place alongside other municipally provided services.

Although on target, this observation was no revelation at City Hall. As federal involvement was diminishing, a parallel change was occurring in local perception away from a reliance on, and expectation of, federal funding and leadership. More than occasionally, city management had become frustrated with the cumbersome requirements attached to federal construction grants or with waiting to move up on their state's priority list. EPA has identified several dozen communities that chose not to wait, but rather to proceed on their own and build facilities suited to their needs with their own funds.

This trend toward increased local initiative is attested by the 1984 comments of the Water Pollution Control Federation (WPCF). The WPCF recognizes the problems inherent in a centrally prescribed program and concludes, "It will be desirable to replace the grants program with other initiatives that directly promote self-supporting utilities, (and) that during this transition it will be far better to provide incentives for efficient plant construction and operation than it is to provide direct subsidies."

The era of high federal spending has produced significant benefits and successes. The CWA compliance attained by municipalities translates into real improvements in environmental quality, public health and aesthetic pleasures. Improved treatment levels and compliance rates have enhanced the recreational use and economic value of waterfront areas.

In addition, treatment plants built with the capacity to serve future needs allows planned growth to occur in an environmentally sound manner. Providing adequate wastewater treatment facilities has improved public health conditions and continues to protect drinking water sources.

In short, as the end of an era approaches, significant improvement can be seen in the nation's water quality. Since 1972, the compliance rate for major dischargers has increased from 33 percent to 79 percent, and approximately 3,500 municipal treatment plants were completed under the construction grants program. These facilities serve 73 million people, and protect the water quality of 24,000 miles of streams and rivers.

Clearly, given the immense amount of work remaining, EPA cannot afford to be lax on enforcement. As the July 1988 compliance deadline nears, the agency has increased its enforcement efforts to assure that national progress toward the goals of the Clean Water Act is maintained regardless of changes in federal funding levels.

Realistic constraints experienced by communities and states led Congress to extend the compliance deadline twice, but there is no indication that another delay is possible. Municipalities must make every effort to attain compliance even without federal funds, because the law is clear that this requirement is not contingent on the availability of federal aid.

Ironically, agressive federal funding actually slowed many communities' progress toward achieving compliance. When the potential existed for receiving 75 percent of eligible wastewater treatment costs through grants, some governments chose to hold up on needed construction in the hope of receiving federal and state assistance at some future time — sometimes at the cost of delaying economic development and ongoing water quality deterioration.

Federal dominance inadvertently fostered an atmosphere of passive dependency. Action on existing needs and planning for future growth was thwarted as some municipalities stood in the federal waiting line.

Conversely, many communities were not interested in this waiting game and proceeded to find suitable financing solutions on their own. These communities overcame obstacles and realized substantial benefits as they proceeded, thus making the grants trade-off worthwhile. Some notable advantages include cheaper and more efficient construction, ability to select local design preferences, greater responsiveness to economic growth, fewer procedural requirements, enhanced flexibility to address future changes, and greater certainty as to the timing of services to customers.

Local self-sufficiency also results in greater realism in user fees and a recognition that wastewater treatment, like any other utility, should be paid for locally. Accordingly, each household and business has an economic incentive to reduce water consumption once aware of the true cost of wastewater treatment.

Of greater community impact are reduced consumption through conscientious use, sound planning, and use of water-conserving technologies and devices to reduce the need for costly expansions or new facilities.

An added benefit, noted by communities that constructed affordable facilities on their own, is the enthusiasm generated by these innovative projects and the real sense of control and opportunity city officials report in assuming responsibility for taking action. Rather than looking immediately to the federal government for solutions, local governments increasingly are mustering their own technical expertise and resources, and are finding innovative and effective solutions to local problems.

For the past year, EPA has been following state, local and private sector activity related to financing pollution control facilities. While the 1981 amendments tolled the phasedown of the construction grants program, states responded by accelerating the establishment of alternative financing institutions.

Currently, 14 states have operational revolving loan programs capitalized at the state level, and another six states have active bond banks. Another 11 states are studying alternative financing programs or have proposed legislation. This increase in state institutional capability to finance infrastructure facilities is an important trend and will play a critical role in assisting communities to attain and maintain compliance.

EPA also has observed a trend away from states simply providing construction funds to municipalities. With increasing frequency, money also is being provided for staff development, operator training and advisory services. States and municipalities recognize the initial investment in attaining compliance must be protected by proper management and operation of facilities throughout their useful lives.

Small communities, in particular, recognize the importance of having access to good information, technical assistance and administrative support as they face the challenge of selecting the most appropriate, affordable technologies, finding the best financing package, and planning for rehabilitation, expansion and eventual replacement of facilities.

A model example of a state-level technical assistance agency is the Municipal Technical Advisory Service (MTAS) based at the University of Tennessee. Established by the state legislature in 1949, MTAS assists cities with technology selection, utility manage-

Reading Converts Waste

"In a couple of years, this place is going to be a gold mine," says City Councilman Edward Leonardziak of Reading, Pennsylvania, referring to the Fritz Island Sewage Treatment Plant, a sprawling facility situated west of the city. Leonardziak, who oversees the plant's operation, says a cogeneration system installed at the plant will eventually mean money in the bank for Reading, because of the electricity generated.

The cogeneration system consists of a single 200-kilowatt internal combustion/generator and an integrated heat recovery system. Hot water recovered from the engine cooling system and exhaust is used to heat the digester sludge, thereby improving gas production. The primary energy source of fuel for the engine will be digester gas.

Don Howard, superintendent of the sewage plant, estimates the plant will generate electricity 12 hours a day initially — primarily during peak usage times. The electricity will be fed into the area utility's power grid. Payment for the electricity will come in the form of reduced power bills for the plant.

The internal combustion/generator has a life expectancy well into the future, Howard says. The machine is designed to run at between 1,200 rpm and 1,500 rpm, but the Reading facility will operate the engine at only 900 rpm.

"This means the machine will not experience the wear and tear of operating at full-rated piston speed. It should last for as long as we need it," Howard says.

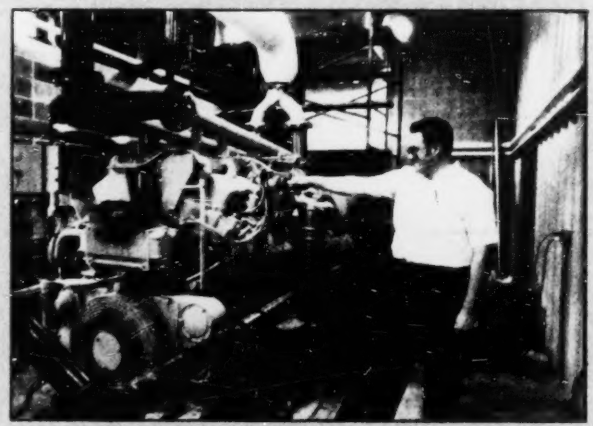
Leonardziak became convinced of the project's viability when Entech Engineering Associates, a Reading consulting firm, conducted the initial feasibility study. Results showed a substantial amount of electricity could be generated by using gas produced at the plant.

"Once we had the results of the study, we decided to go ahead with the whole project," Leonardziak says. Planning for the $500,000 project, funded through a bond issue, began in late 1984, with completion this year. The electricity produced will help reduce the treatment plant's yearly electricity bills, which amount to about $200,000.

The plant has been designated a "qualifying cogeneration facility" by the Federal Energy Regulatory Commission, meaning that under law, a utility, in this case Metropolitan-Edison, must purchase power produced by the cogeneration facility.

Howard says the digesters are set to provide maximum digestion action around the clock. Sludge from the plant is heated to the optimum range of 92 to 96 degrees F. The plant will store gas produced from the sludge for eight to 12 hours. The remainder of the time, the gas will be used to drive the internal combustion/generator.

"It is possible that with proper heating and mixing, the sludge will produce enough gas to run the engine 24 hours a day," Howard says. "But everything depends upon the amount of gas produced. That's the key."



Don Howard inspects the engine that will provide hot water to heat the digester sludge.

Leonardziak says cogeneration for municipal sewage treatment plants is an idea whose time has come full circle. He looks upon the Reading operation as the first of a new generation of similar plants that will be built.

"There's too much energy being wasted," Leonardziak says. "In this era of federal cutbacks, cities that find themselves short of funds are going to be looking for ways to balance their books. One painless way of making money for a city is by making use of waste gases. It's there for the taking.

"It's an expense up front," he adds, "but once you've made the final commitment, the project will pay for itself in the long run. When the cost of energy goes up again — as it is sure to do at some time in the future — I think Reading will be that much further ahead because of cogeneration." □

ment plan preparation, capital improvement program development, user-charge system development, operator and maintenance training, system automation and more.

More recently, New York established a Self-Help Support Program for Small Communities, designed to assist small communities with limited resources alleviate their water and wastewater problems.

Progress has been made in improving water quality, principally through the application of $42 billion in federal construction grants matched by $14 billion in state and local expenditures. Currently, an important evolving federal role is to provide technical information and assistance to states and municipalities on institution building and the establishment of infrastructure funding mechanisms that can provide a continuing source of construction funds.

To help communities meet the 1988 compliance deadline, EPA will be providing financial and technical information to states and municipalities. The agency also will increase assistance to communities, especially smaller ones, in developing affordable and technologically appropriate water pollution control solutions.

EPA also is increasing the distribution of slides, videotapes and brochures on small community wastewater management, and the development of financial management guidance.

Additionally, the agency has been holding small community seminars for local officials to address compliance attainment in the context of financing alternatives, financial capability, use of appropriate technology, and proper operation and maintenance practices.

The United States has come to recognize that clean water is not an inalienable right, available in limitless quantities, but is instead a shared responsibility requiring rational and effective stewardship. Local public officials, for their part, are aware that the value of clean water cannot be measured in cost alone, but must take into account its contribution to a community's economic base and quality of life. □

Lawrence Jensen is assistant administrator for water with the U.S. Environmental Protection Agency.

Composting in Philly

By Frank Senske

With the federal government's ban on ocean dumping five years ago, most major seaboard cities, such as Phildelphia, faced hard decisions on sludge disposal methods in the early 1970s. Philadelphia's new sludge management operation would have to meet the needs of a 279-square-mile area, with 2 million people producing 550 million gallons of wastewater a day. In addition, the system would have to satisfy the environmental and fiscal concerns of increasingly aware public and private sectors.

The final solution turned out to be the country's largest municipal composting operation, backed by a $32 million construction program. Several aspects of the project worked in Philadelphia's favor as the project was undertaken.

The Water Department combines the sewer authority and water authority, providing cost-effective operations and a conducive atmosphere for accomplishing mutual objectives. The size of the service area also was a bonus, creating a smaller cost per ton due to the magnitude of the population. Another advantage is the city's prime location, close to transportation networks. Since the city's Water Department owned well-located land, the city had excellent siting options.

The main problems were a rapidly increasing sludge volume and critical lead time. The sludge volume was rising due to a planned upgrade and expansion of Philadelphia's three main water pollution control plants, which were removing a steadily increasing volume of pollutants, causing a heavier volume of sludge from the wastewater. In the mid-1970s, the city produced 50 dry tons per day. Currently, the sludge load is 175 dry tons per day, with 300 tons per day predicted in the near future.

To begin, the city formed the Sludge Management Unit to oversee the project. By 1975, the unit had narrowed the city's options to 10 alternatives, with the most expedient being landfill disposal. The non-revenue producing aspect of this option, however, as well as the realization of decreasing landfill space, kept the city from following this route.

By 1977, the options were reduced to four: incineration, co-incineration, liquid sludge applications and composting. Incineration and co-incineration, the burning of trash and sludge at the same time, were attractive alternatives. These rapid disposal methods offered income-generating possibilities through the use of generated heat for energy production. The capital costs were relatively high, but labor requirements were low.

Ash disposal, siting and lead time forced the rejection of these alternatives. Land composting, however, offered a number of important advantages. The city was attracted to the environmental benefits of recycling the nutrient content of sludge and the marketability of compost as a fertilizer.

Composting also proved to be more cost effective than incineration and liquid sludge application programs. Composting is a natural phenomenon, with most of the real work done by microorganisms. The relative ease of starting even a large-scale composting system and the fact that composting was a proven technology were other factors in the decision.

The city's compost exceeded all expectations, with inventories quickly depleted. As the compost's popularity increased, production also had to be boosted. By 1977, however, processing expenses per ton had risen to $34, and the product's quality was questioned. At that point, the city began purchasing equipment to control costs and produce a soil-conditioning product.

The first piece of equipment was a shredder-mixer, manufactured by Royer Foundry & Machine Co. Fed with front-end loaders, the equipment mixed, shredded and aerated the dried sludge, while automatically removing and ejecting all non-friable material.

Encouraged by its small-scale success, the city began considering the 1 million gallons of sludge produced daily by its wastewater treatment plants for composting. For this amount to be composted, the sludge first had to be dewatered and heated to destroy organic material, pathogens and viruses. The sludge was then trucked to the composting site, where wood chips provided bulk, void space and a carbon source for the working microorganisms.

By the end of 1980, Philadelphia was meeting its objectives. The city no longer was dependent on ocean disposal, and the EPA deadline presented no problems. The city is expanding its composting facilities, and when completed in 1987, the system will have four screens, each producing 300 cubic yards of compost per hour. The city plans to sell 50 percent of the finished compost product, with the balance used in local municipal projects and strip-mine reclamation. □

Frank Senske is chief of the Sludge Management Unit for Philadelphia's Water Department.

MUNICIPAL COST INDEXES

The **Municipal Cost Index** for September leveled at 339.9, a slight rise from August's figure of 338.2 and a continuation of its climb over the past few months.

The **Construction Cost Index** also rose in September, climbing three points to 378.2. The **Consumer Price Index** rose 1.6 points to 327.9, while the **Producer Price Index** continued to fall, dropping to 298.9.

Products in the fuel and oil family continued to lead the losses column in this month's marketbasket, but the declines are beginning to show signs of slowing. Diesel fuel fell only 4.2 points from August, compared to double-digit declines during recent months. Other products showing losses in September included gypsum products, natural gas, plywood and electric components.

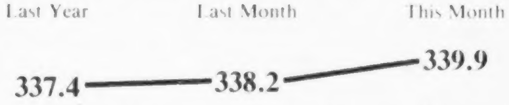
— Compiled by Joe Morris

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	149.2	.2	1.3
Apparel	185.3	−.7	1.6
Asphalt Roofing	387.7	−1.8	−5.6
Books	138.6	.1	4.8
Chemicals, Industrial	316.3	−1.0	−6.8
Coal	538.3	0	−1.7
Concrete Products	325.4	−.2	1.2
Construction Machinery	366.9	.2	1.4
Diesel Fuel	348.4	−4.2	−45.3
Electric Components	201.0	.2	1.9
Electric Lamps	347.1	.3	1.1
Electric Power	464.6	2.1	1.0
Engines, I.C.	353.3	.2	1.8
Fans, Blowers	367.8	1.3	2.5
Fertilizers, Mixed	255.3	.2	−1.2
Floor Coverings	195.0	.1	2.7
Flow Instruments	235.3	0	1.5
Footwear	260.7	−.4	1.4
Foundry Products	364.5	−.1	.2
Fuel Oil No. 2	379.3	−6.7	−41.3
Furniture	315.8	−.2	2.6
Gasoline	392.6	3.7	−33.5
Generator Sets	349.6	−.6	−.7
Glass	229.6	.2	2.1
Glass Containers	399.6	0	4.7
Gypsum Products	353.8	−1.8	4.6
Hardware	306.5	.3	.3
Heating Equipment	269.7	1.1	3.9
HVAC Controls	127.1	.4	1.8
LP Gas	377.4	11.9	−28.0
Lubricants	373.0	1.7	−.2
Lumber	311.5	1.0	1.4
Metal Fabrications	315.6	.2	.3
Millwork	320.6	1.2	2.8
Motor Vehicle Parts	358.3	0	1.0
Mowers	264.0	.1	.9
Natural Gas	1200.1	−5.8	−14.7
Office Machines	154.3	.1	−.4
Paint	281.2	.1	1.7
Paper	304.5	.1	0
Passenger Cars	232.9	−.2	1.8
Plumbing Fixtures	324.2	.4	3.6
Plywood	235.3	−2.1	−.8
Portland Cement	353.2	−.6	−2.9
Residual Fuel	499.8	−4.5	−44.1
Sand, Gravel	317.8	.2	2.7
Sanitary Papers	383.5	.1	1.9
Soaps, Detergents	273.9	0	.1
Sporting Goods	204.8	−.1	.2
Steel Mill Products	349.3	.2	−4.6
Struc. Clay Products	309.2	.6	4.1
Switchgear	286.7	.2	2.3
Tires, Tubes	235.3	−.2	−.8
Transformers	232.6	0	0
Trucks	342.8	−.3	2.9
Valves	106.6	0	1.6
Wire, Cable	206.5	−.2	1.6
Wiring Devices	373.5	.1	3.1

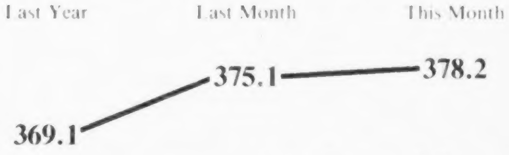
At-A-Glance Changes

MUNICIPAL COST INDEX



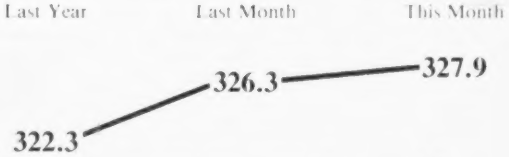
Percent Change From Last: Month .5 Year .7

CONSTRUCTION COST INDEX



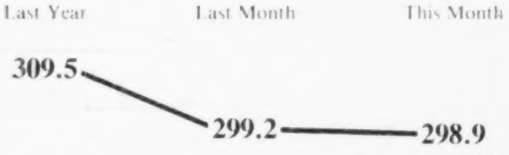
Percent Change From Last: Month .8 Year 2.5

CONSUMER PRICE INDEX (BLS)



Percent Change From Last: Month .5 Year 1.7

PRODUCER PRICE INDEX (BLS)



Percent Change From Last: Month −.1 Year −3.4

These figures are calculated on a base year of 1967.

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year
Receipts	602.5B	2.3	7.5
Federal Grants	111.0B	8.8	16.0
Durable Purchases	20.8B	.97	6.1
Consumables	37.9B	−5.0	0.8
Services	364.2B	2.0	7.8
Structures	56.1B	2.6	17.1
Salaries, Wages	292.2B	1.8	7.5
Surplus	64.5B	9.7	2.1
Employment	13.818M	.14	2.5

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The Hazwaste Response • Computers in Public Works

A Publication of Communication Channels, Inc.

OCTOBER 1986

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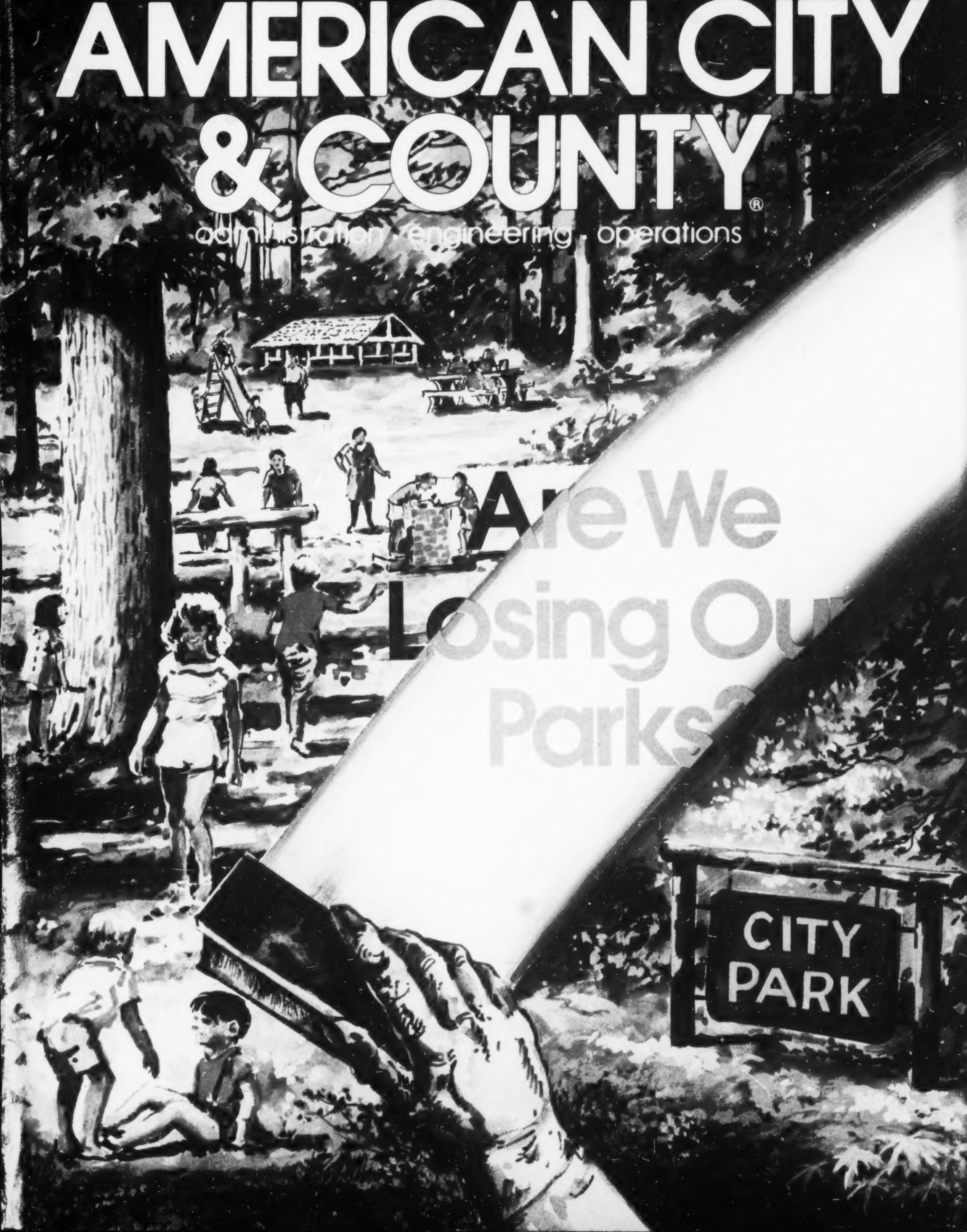

Are We Losing Our Parks?

A Publication of Communication Channels Inc

AMERICAN CITY & COUNTY

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BPA

October 1986

Vol. 101, No. 10

FEATURES

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This special report reveals counties may not have enough funds to pay for 47 percent of their public works needs through 1990, including 76 percent for water supply.

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The combination of expanding urbanization and dwindling funds paints a bleak future for the nation's parks and recreation facilities. This month's cover is an original illustration by Harry Rossoll, renowned artist and the creator of "Smokey Bear." Rossoll, who served for 35 years as an artist for the U.S. Forest Service, lives in Atlanta. In addition to Smokey, he has created several other woodland characters to illustrate the need to conserve the nation's woodlands.

Hazwaste Response 58

In which areas do you use computers? *

Utility Billing/Maintenance	37.3%
Police/Fire Services	21.4%
Parks & Recreation	10.8%
Solid Waste Collection/Disposal	7.7%
Traffic Engineering/Control	5.9%
Building Maintenance/Security	2.7%
Public Transit	2.7%
Other	6.2%

** Taken from an exclusive American City & County survey, July 1986*

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ACROSS AMERICA

Equipment Purchasing Habits Surveyed

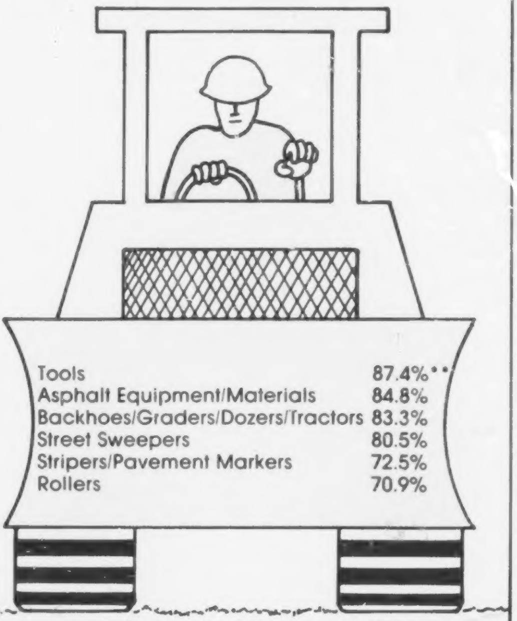
More than half of the nation's municipalities will be purchasing new automobiles or trucks within the next year, according to an exclusive *American City and County* survey of public works administrators and municipal officials. Of the 180 survey respondents, 75 percent represented municipalities with populations of 50,000 to 150,000.

Respondents revealed their roles in the decision-making process for heavy equipment purchases **(see chart)**. Nearly three-quarters either participated in the final decision or recommended products for auto, truck, backhoe, grader, dozer, street sweeper and tool purchases.

Respondents also were active in the decision-making process for engines, loaders and refuse vehicles, pipe, rollers, salt and sand spreaders, snowplows and stripers, with more than 50 percent either directly involved with or consulted on the final purchasing decision.

In addition to trucks and automobiles, the survey found nearly 40 percent of the communities planned to buy asphalt equipment/materials and tools within the coming year. Approximately one-third of the respondents said their community would be purchasing backhoes, graders, dozers or tractors, and pipe for both sewer and water lines. Snowplows, street sweepers, salt and sand spreaders, and loaders and refuse vehicles will be purchased by more than 20 percent of the communities involved in the survey.

Street/Highway Decision-makers*



Tools	87.4%**
Asphalt Equipment/Materials	84.8%
Backhoes/Graders/Dozers/Tractors	83.3%
Street Sweepers	80.5%
Stripers/Pavement Markers	72.5%
Rollers	70.9%

*From an exclusive American City & County survey of 180 public works directors and administrators

**Percent of survey respondents who recommend the purchase or participate in the final decision to purchase

GRCDA Conference Conducted in Reno

Hazardous wastes and resource recovery drew the most attention at seminars and exhibits during the recent annual meeting of the Governmental Refuse Collection and Disposal Association (GRCDA) held in Reno, Nev. Nearly 1,000 GRCDA members attended the three-day conference, which featured more than 130 exhibitors of waste collection and disposal products and services.

Seminar sessions followed five tracks — collection, disposal, landfill gas, hazardous wastes and resource recovery — with the heaviest attendance in the hazardous wastes and resource recovery discussions. Of particular interest in the hazardous waste area was local government responsibility for the collection and disposal of such wastes from small-quantity generators (SQG).

Barry Shanoff, counsel for GRCDA, noted that the U.S. Environmental Protection Agency is not giving SQG a priority in its regulation consideration. EPA, he said, expects control of SQG to cost local governments only $100 million, a figure Shanoff cited as much too low. If there is to be any EPA enforcement, he added, it will come from the agency's regional offices.

Local government officials are going to encounter increased pressure regarding SQC collection and disposal, Shanoff warned, particularly to provide instructional materials for small-quantity generators.

Jim Sweeney of Anchorage, Alaska, said that local officials will have to solve their own SQC problems and should not expect much help from the state and federal levels. His municipality, he said, already has established a hazardous waste program, including a Mayor's Hazardous Waste Task Force. Anchorage also has conducted its own hazardous waste study, including an inventory of generators and amounts of waste, disposal methods and technology, and other disposal options available.

NORTHEAST

Tewksbury To Open Water Treatment Plant

The town of Tewksbury, Pa., has relied on groundwater obtained from several wells as its main source of drinking water, but recent quality problems in the well supplies forced a change. The town has started construction of a new 3.5-million-gallons-per-day water treatment plant, utilizing the Merrimack River as the supply source.

The new facility will include a river intake system and a raw water pumping station to bring river water to the plant. The conventional treatment process of chemical addition and mixing, flocculation, sedimentation and filtration will be employed. A finished water pumping station and pipeline will convey the treated water to the town's distribution system for delivery to consumers.

Total cost of the project, designed by Boston-based Camp Dresser & McKee, will be approximately $8.3 million. The town received a grant of nearly $4 million from the state under the Chapter 406 Construction Grants Program, administered by the Department of Environmental Quality Engineering. Completion is scheduled for February 1988.

Wayne, N.J.: Construction has begun on a redevelopment program in the town's Mountain View section. A cooperative effort between the township and Chamber of Commerce began with a plan for increased parking for shoppers, better traffic circulation, new railroad station and commuter parking, and general streetscaping with new lighting, trees and brick sidewalks. The RBA Group, an engineering firm, also incorporated drainage and flood control improvements, and removal of blighted areas. The project is being funded in part through grants from New Jersey Transit and the Small Cities Grant Program.

Rockland, Mass.: A check for nearly $20,000, representing a 75 percent share of the savings Metcalf & Eddy achieved during its third year of operating the community's wastewater treatment sys-

Office
Automation

Using Computers In Public Works

Office automation in city governments is spreading from typical financial applications to other departments, including public works, resulting in sudden changes for established practices.

By Joe Morris, Assistant Editor

The image often perceived of the typical public works department is changing rapidly with the advent of office automation systems. Modern computing techniques are being implemented by municipalities nationwide in all departments, including public works. While many departments are finding computers helpful in maintaining records and inventories, others are using innovative software for everything from street maintenance records to state-of-the-art drafting.

Within the past few years, computerization has spread from the finance offices to all aspects of municipal operations. A broader market for hardware and software has increased computer usage and computer literacy by local government employees. And although start-up difficulties occur, most say computerization is a boon. Now the computer trend is changing the face of public works departments as well.

In a recent *American City & County* survey of municipal officials, computer usage was found to be on the rise. The survey also showed increased computer usage in public works departments for a variety of applications. According to the survey, 37 percent use computers for utility billing and maintenance, a predominantly public works function. And more than 7 percent now are using computers to keep track of solid waste collection and disposal.

The survey also showed computers are used by 10 percent for parks and recreation, 6 percent for traffic engineering and 3 percent for public transit. With continued innovations in computer equipment, these numbers are likely to rise.

Palm Beach, Florida, automated its police and financial departments first, like most municipalities. But then the Public Works Department was brought into the computer age, forcing some changes, says Albert Dusey, public works director.

"We got into computers about two years ago," Dusey says, "and we're still adapting to them. Everyone learns at a different pace, but my assistant director has gotten quite good with the machines, and is leading the way in training the department."

Dusey, like most public works directors, asserts that the time saved from using computers is compensating for drops in productivity and efficiency occuring when computer systems first are installed.

"The computers are increasing our ability to manage resources," he says, "and that increases productivity."

Phil Bloom, city engineer for Moses Lake, Washington, agrees, adding "all areas of the public works department are using the computers, and it sure makes things faster." Moses Lake's IBM and Hewlett-Packard systems have been in operation for just over two years,

In which areas do you use computers?*

Utility Billing/Maintenance	**37.3%**
Police/Fire Services	**21.4%**
Parks & Recreation	**10.8%**
Solid Waste Collection/Disposal	**7.7%**
Traffic Engineering/Control	**5.9%**
Building Maintenance/Security	**2.7%**
Public Transit	**2.7%**
Other	**6.2%**

**Taken from an exclusive American City & County survey, July 1986.*

Bloom say of the city's setup.

While smaller municipalities are just getting into personal computer applications for public works, larger cities are on the cutting edge of computer technology. In Indianapolis, Public Works Director Barbara Gole says her department has automated some operations completely.

"Our wastewater treatment plants are completely computerized," Gole says, "and systems for wastewater treatment and inventory control for sewer maintenance are being done now."

Lakewood Computers Update Diverse City Functions

"The ability of management to grasp what could be accomplished led to the computerization of all departments," says Anthony Mineo, Lakewood, Colorado's data processing manager. The city recognized the importance of computers for all city functions, not just the "traditional accounting and payroll," Mineo adds.

The city's computerization efforts began in 1978. Lakewood had been using two service bureaus for data processing functions, but the growing expense forced the city to establish its own computer resources.

Mineo explains the phenomenal growth in Lakewood's data processing requirements. "We promoted our data processing capabilities to the city. We looked at what people were doing and how data processing could make their lives easier. The more departments we converted, the more that wanted data processing.

"The growth of PCs also increased computer literacy among city staff members and showed the potential for data processing," he adds.

Lakewood's first computer system was installed in 1979. The McDonnell Douglas system had 16 terminals and 300 MB of disk storage. Mineo and two programmers converted all the city's old programs to run on the new system, and wrote several new applications. By 1981, the Reality 6000 system was running on-line payroll, budget, financial management, utility billing, police activity and police traffic enforcement systems. By 1982, Lakewood had outgrown its original system, and a second was added to accommodate growing police requirements.

In August 1983, both systems were traded for a larger system, the M9000. The conversion from the old system to the new was simple, says Mineo. "We just did a file save on the old systems, converted the tapes from 800 bpi to 1,600 bpi, loaded the accounts on the M9000 and compiled the programs. The new machine was up and running overnight," he says.

Today, Lakewood utilizes 80 ports on its system, and plans to add 16 ports in the next few months. With the use of port contention devices, the 96 open ports will support 120 terminals easily, Mineo says.

A system for the municipal court, completed in 1984, automates all functions involved in court administration, including probation counseling and police record-keeping. The system, rated best in the state according to Mineo, also allows record updating and fee payment.

Another program allows police property to be identified using a barcode system. Lightwands are connected to the computer, automating the logging in and out of evidence and property.

Another police-oriented program, computer-aided dispatch (CAD), allows rapid response to citizens while improving officer and firefighter safety. The dispatcher types all relevent information from a call, and the screen displays the recommended units to be sent to the incident. The recommendation is based on the address of the incident, and a pre-defined table for the incident type.

Other programs utilized by the city include land-use and building permit systems, allowing the city to track all permits issued within city limits, and creating a database to provide zoning information for new developments.

"The population has grown from 85,000 in 1979 to 135,000 today," Mineo says. "While city functions have had to grow to accommodate the increase in population, most have been handled by the computer. In the accounting sector, no new employees have been added. We've gone from three basic applications in 1979 to approximately 18 major computer programs today." □

Indianapolis also is developing computerized routes for its solid waste division, another innovative process. The city's Northrop and IBM systems have been in use since the early 1980s.

In addition, the city's departments are joining with public utilities in a computerized mapping program. "Pretty soon, anything in the city will be able to be graphically located using this system," Gole says.

Cheyenne, Wyoming, also is utilizing computerized mapping and drafting systems, as well as a variety of other computer techniques, says Gary Grunkemeyer, public works director.

The Cheyenne Public Works Department system, which features IBM, Hewlett-Packard and LAN card systems, is being expanded in phases, Grunkemeyer says, with a CADD (computer-aided design and drafting) system planned for future use. The Cheyenne system is unusual in that the department began automating four years ago, ahead of all other city departments except accounting. The early start for public works automation allowed the department to get ahead of other communities in the region, Grunkemeyer added.

At first, expect drops in productivity, equipment trouble and staff reluctance.

"We're getting a lot of calls from other cities in the country, because they're finding out what we're doing from our vendors," he says.

The automation trend is picking up speed across the country, but various difficulties now are presenting themselves, impeding progress for local governments. One problem faced by public works departments planning to automate their operations is a lack of funds. With federal and local budget cuts looming on the horizon, department directors often must curtail plans for expansion.

"With public works budgets being what they are, my plans may change," says Hal Leedom, public works director for Dodge City, Kansas. Leedom's department began automating with IBM personal computers in late August.

"Right now, we're planning to do everything we can on them, including drafting. If the money holds up, I plan to bring a CADD plotter in by 1989," Leedom says.

"We've been very lucky," Gole says. "We saved almost $200,000 in our liquid waste department last year, partly due to improved productivity, partly due to computers. That justifies using more computer systems."

"This year, we had $60,000 budgeted for computers, which is the same as last year," Grunkemeyer says. "We've got a couple of people on City Council who are attuned to computers, and they fight for us when we need help."

The wide use of computers within public works also helps to make them a viable expenditure, keeping automation equipment safe from budget-slashing procedures.

"Our secretaries use them for word processing, and we keep our maintenance systems and work records on the computers," Palm Beach's Dusey says. "Right now, they're divided up about 50-50 between the office and field staffs."

In most areas of the country, larger cities led the way in office automation. Many smaller cities, particularly in the Southeast and Southwest, are experimenting with office automation for the first time. And these trial efforts may or may not lead to full automation for those departments.

> *The wide use of computers in public works keeps them safe from automatic budget slashing.*

"We've had an IBM personal computer for just over a year," says Dick Renshaw, acting city engineer for Boulder City, Nevada. "All of the city's departments are partially automated, and we are in the process of changing in the public works department. We want to become automated, and hope it will increase our efficiency."

Fort Thomas, Kentucky's Public Works Department has not begun the automatization process yet, according to director Hershel Roell, but may be doing so within the next few years.

"The city has had systems for about four years in the main city building," Roell says, "but we don't have anything in public works yet."

The department keeps some of its street maintenance records in the main city computer, and Roell says the efficiency of that system has convinced him of the viability of computers in the public works arena.

"I would definitely like to see the department automated," he says, "because automation is usually better."

Despite glowing reports of increased efficiency and accuracy in record-keeping, all is not simple when converting a public works department from manual to computerized filing and document recording. At first, expect drops in productivity, minor equipment trouble and reluctance on the part of some staff members to adapt to the new system. The initial glitches do not have a long duration, however, and soon the system

Aiken County Solves Space Problems

By Julian L. Mims

What if local government could save a million dollars on storage costs? The problem of limited office space is a universal one for cities and counties, but practical solutions are available.

Aiken County, South Carolina, was out of office space. A new judicial center was needed urgently, but the price was too high. The county gained sufficient office space for its expanding operations without wrecking the budget with a combination of records management and microfilming.

The major reason for the courthouse space-crunch was the pervasive and relentless accumulation of records. Therefore, Aiken County officials sought an immediate and continual means of clearing unnecessary hard copy from county offices. Within each department, any record not being used once a month would be deemed "inactive" and consequently earmarked for off-site storage. At the inactive records storage facility, high-rise shelving would permit a storage ratio of 5 cubic feet of records to each square foot of floor space.

Surplus records now routinely channeled to the storage center should free space in work areas across the entire county. The county expects resultant savings in file equipment and supplies, floor space and staff retrieval time will be 80 percent above the expense of maintaining the same data in prime office space.

Especially significant will be the quick effects of this solution. No more than a year after project inception, as much as two-thirds of the total records in each office may be removed to inactive storage. Secure and accessible data control will be achieved at extraordinary savings.

Inactive records control is complemented with an innovative application of microfilm technology. County officials realized 2,500 documents could be reduced to a single roll of microfilm, and one workstation could house the data of an entire office. Microfilm offered advantages over and above space savings, especially for certain types of records. The micrographics system, for example, could give special attention to those records that must be protected in perpetuity, such as wills and judgments or that must be retrieved quickly, such as law enforcement and real property information.

For this high-profile data, microfilm would offer fast and convenient copying, safeguards against misfiling, and off-site security deposits. Most importantly, microfilm would provide ready retrieval. Aiken's data system allows instant-retrieval-to-key document, meaning immediate access not only to a file, but also to a key document within a file. By establishing instant-availability of its information, Aiken is one of the first counties in the nation to employ this technology.

Records accumulation is a major culprit in exhausting available office space. To control inactive records, Aiken County is developing records-retention guidelines and a storage center, which may remove 75 percent of all records from county offices. Under this plan, data can be housed at one-fifth of the previous maintenance cost.

In addition, the county is entering high-profile data into a microfilm system, wherein any one of 2 million pages of files is retrievable within seconds. The combination of microfilming and inactive records control is easing most of the current space problem, and will continue to prevent future re-accumulation of hard copy.

The bottom line of the project is cost savings. Space savings reduced the price of Aiken's judicial center by 20 percent up front, as an entire story could be eliminated from the original building plans. The office building could be built within budget, as the space-saving plans reduced costs by $1 million. ☐

Julian L. Mims is the coordinator of central services for Aiken County, S.C.

is up and running with few or no problems.

The initial training can be aided greatly by having one person on staff who is well-versed in computer operations. While most companies provide training on new equipment, an in-house expert can ease many fears held by staff members.

"We started with a core of people who were well-versed on computers, and they have trained other people," Gole says. "Basically, it's a ripple effect. Those who have been using the computers the longest are the most familiar, and they help those who are new to the systems.

"Most of the computers have caught on," she adds. "Now the staff can't get enough of it — everyone wants a computer. We've brought 40 to 50 in within the last four years."

For those public works departments in the midst of automation, adapting to a new system often is complicated by the advent of new software and hardware. In Bangor, Maine, the city is going through piecemeal computerization, including the Public Works Department, says James Ring, public works director.

> ***"We're planning to do everything on them, including drafting."***

"We're partially done with automating our department," Ring says. "We're doing transfer vouchers, job-cost analyses, things like that on the computer. We're still doing some things by hand, but we're moving toward total computerization."

The department began automating two years ago, using a Sperry system similar to the one utilized by the city offices. Within the next few years, the department will be computing its pavement management function, as well as wastewater treatment and road maintenance, Ring asserts.

"The computers are obviously a great time saver," he says. "There's much less handwork, and we can get job cost totals the next day instead of several days later. With our somewhat limited experience, I would say the computers are great. We're late getting into them, but they're saving lots of time."

Dodge City, Kansas, is just beginning to automate its public works department, and director Hal Leedom expects the early days to be less than auspicious.

"You have to learn to use something to make it be productive," he says. "But we're doing a lot by hand now, and we intend to get out of that as quickly as possible."

Municipalities, particularly those currently installing or updating software, are generating programs to suit their own needs. While many vendors offer specific software to run public works-oriented programs, many cities prefer to generate their own.

"We have, in some cases, forced software contractors to re-do things," Grunkemeyer says, "because what they had on the shelves was not sophisti-

Cumberland Saves With Outside Service

In these times of shrinking federal and state aid, county and municipal governments and agencies sometimes save money using a data processing service rather than establishing an in-house department. For some large entities, having the in-house mainframe may be convenient, but counties with small populations could find such a situation both impractical and costly.

The experience of Cumberland County, Pennsylvania, is a case in point. The county is the state's fastest growing, with most of its 189,000 residents living near Harrisburg, the state capital. The county government, based in Carlisle, has been updating its data processing services since 1979.

Starting with the controller's office, the county switched from batch processing to computer terminals on-line with a Burroughs B-1900 series mainframe located 20 miles away at EUR Datacenter in Mechanicsburg. Other departments soon followed, increasing efficiency and lowering costs.

Cumberland County's annual service with EUR is $1.03 per capita, compared with $2.86 for an adjacent county with an in-house data processing department.

"Other counties have hired skilled staff that require high salaries in order to run their in-house computers," says Marcia Myers, who chairs the Cumberland County Commission. "We never had to have a data processing department."

An in-house installation would force the county to put all departments on-line at one time and require hasty staffing, adds Majority Commissioner Robert Adams. The installation, programming, personnel orientation and training would be a lengthy process that might disrupt county administration, he says.

Computer technology changes constantly as new technology emerges. A purchased system could lock the county into hardware that could be obsolete in a short period of time, says Minority Commissioner Robert Moore. A data processing service not only provides updated technology but the staff to operate the equipment, he says.

For other counties considering data processing, the Cumberland County commissioners recommend a thorough economic study comparing the pros and cons of establishing an in-house department and retaining a service.

The possibility of telephone service interruption due to storms or other interference need not be a problem, as terminal operators can record data on forms until service is restored. Special safeguards also are available that prevent data being handled for another county to be accidentally fed into Carlisle.

Since implementing the system, purchase orders can be verified against budgets automatically. When the vendor submits an invoice for payment, it also goes through the system for verification against the budget. This allows payment to proceed quickly, and the county often is able to take advantage of prompt payment discounts. Each week, 400 to 500 checks are prepared by an on-line printer connected to the county's system.

Payroll for the county's employees also is processed quickly. The mainframe in Mechanicsburg identifies each employee, computing the salary and the applicable deductions. The computer effects direct deposit action into the local credit union, and automatically tracks authorized vacation, sick leave, and paid holiday time. The output is accepted by the Pennsylvania Department of Labor and Industry.

Starting in 1981, the county began processing election returns with the system, making information available to the local media much faster. In addition, the county currently is planning to put the Prothonotary and the Clerk of Courts offices on-line, for access to legal opinions and criminal records. ☐

cated enough. I think we'll see a lot more of that in the future."

"We expect to be doing a lot of modifications to our systems to use as many different types of software as possible," Leedom says.

"We're still learning to use our computers — they're toys at the moment," Renshaw adds. "But we've started pavement programs and street inventories and we should be increasing our speed and efficiency over past records."

As computer literacy grows in public works departments, and as computer equipment becomes more advanced, smaller communities will be moving into programs currently operated only by their larger counterparts. For example, Indianapolis' wastewater management programs, while new, will soon be copied and adapted to the needs of smaller communities. And other programs will soon follow suit, says Bangor's Ring.

"We're a few years away from pavement management and wastewater control, but we're keeping files on road maintenance, and adapting as quickly as possible," he says.

"Our next phase will be to put the building inspection and engineering department records on computers. That should be a great time saver," adds Cheyenne's Grunkemeyer.

Computer usage in local government seems certain to grow and expand, in light of updated technology and the industry's vigorous pursuit of local government dollars. Equally obvious are the pitfalls facing governments, particularly a lack of available funds on both the local and federal levels.

Public works departments, whose budgets are often under attack, will find it increasingly difficult to make computer purchases. With that in mind, several directors are combining systems with other departments, or other organizations within the city. Fort Thomas' use of the city's equipment for recordkeeping purposes, and Indianapolis's computer mapping system, shared with the local utilities, are two examples of such cost-saving measures.

In addition, as the time-saving and efficiency improvement aspects of computerization catch on, public works departments will move into automation as a cost-saving measure. As budgets are trimmed by General Revenue Sharing decreases and Gramm-Rudman-Hollings, public works directors will be seeking new ways to stretch local dollars to the limit. And computers, although costly in the beginning, may be the method of choice to save money in the future. ☐

Hennepin County Centralizes Office Copier System

In a sweeping modernization program, the Central Services Division of Hennepin County, Minnesota, replaced six different makes of older office copiers with one standardized line, and linked them together in a central copier system for automatic data gathering and analysis.

As an additional benefit, the county reduced copying costs from 6 cents per copy to 4¼ cents. Richard Schultz, director of accounting and purchasing for Hennepin County, says two main goals were "to improve employee productivity and to reduce the direct costs of copying a document."

To implement the county's goals, Donald Garrison, Central Services Division manager, devoted six months to an intensive investigation and testing process. Starting in summer 1983, pre-bid conferences were held with major copier manufacturers to discuss specification options. These discussions resulted in key decisions regarding copier requirements.

Three usage ranges were identified: low (up to 7,000 copies per month), medium (up to 25,000 copies per month), and high (more than 25,000 copies per month). Appropriate equipment for each range would be purchased.

Edge-to-edge copying was essential for general convenience, but also for true and exact copies of court records and other official documents, such as welfare client files, birth and death certificates, automobile and boat ownership registrations, and property deeds and tax files. For the copies to be certifiable as true and exact, all the data on the document must be reproduced. A maximum allowable blank margin of 3 millimeters was established to meet this legal requirement.

Some of the machines needed advanced features, such as two-sided copying, reduction and enlargement, and the ability to produce overhead transparencies and address labels. Price and productivity were bottom-line factors.

Six companies were invited to submit machines for testing in county offices. After a 45-day testing period, each employee completed a questionnaire, grading the quality, speed, downtime, ease of operation and user friendliness of each test machine. As a result of the testing, a contract was awarded for small- and medium-volume Toshiba machines. High-volume copiers were not purchased since only six or seven locations needed high-volume machines, and the cost of those units was disproportionately high.

Today, with 190 copiers in operation throughout Hennepin County, the copier control system is in full operation. Each copier is linked by telephone communication cable to the Central Services Division and usage is recorded on nine-band magnetic tape automatically. Each month, the taped records are processed by the county's mainframe computer to generate billing back to the using department. In addition, reports including run length, copies per terminal and copies per user are generated.

Schultz says the county plans to utilize the methodology and procedures used for copiers on other office equipment in the future "to standardize purchases and to reduce costs. We are moving into networking with PCs in the next few years to communicate inter-office memoranda, reports and documents. That may cut down on some of the growth of convenience copying that we now experience." ☐

Government Agencies Topic of APCA Guide

The Air Pollution Control Association (APCA) has published its 1986 directory providing information on air pollution control and hazardous waste management agencies at all government levels in the United States and Canada. Information includes names, titles, addresses and telephone numbers of the heads of each agency housing the respective control programs, heads of intermediate departments, and operating heads of control programs. Also contained are supplementary personnel and laboratory data.

The price of the directory is $4 for APCA members and $8 for nonmembers. To obtain a copy, write to Publications Department, Air Pollution Control Association, P.O. Box 2861, Pittsburgh, Pa. 15230. ☐

NEWS

Yearbook Outlines Industry Expansion

The 1986-87 Resource Recovery Yearbook indicates several significant trends occurring in the waste-to-energy industry, including changes in the type of technology used, the size of plants, ownership tendencies and growth patterns. Published by Governmental Advisory Associates, the third edition of this bi-annual publication analyzes 269 projects in the United States, including 16 methane recovery facilities and 194 projects in advanced stages of planning, under construction, operational or shut down. Only 123 projects were reviewed in the yearbook's first issue in 1982.

"Clearly, the number of facilities in the United States is expanding, and all indications are that the resource recovery industry will continue to experience significant growth in the coming years," says yearbook editor Robert Gould.

The study identifies 75 resource recovery facilities in conceptual stages of planning. Of these, 41 percent will be built in the Northeast, 23 percent in the South, 19 percent in the North Central region and 17 percent in the West. The percentage of planned facilities has jumped by 10 percent in the Northeast, compared with figures in the 1984 Yearbook, while the total for the West has dropped by 8 percent.

New projects are scheduled in 30 states, with 54 percent expected to be on-line by 1990. The study further shows that 40 percent of the planned facilities will use mass burning-waterwall incineration, 27 percent will use modular mass burn, 17 percent will install other mass burn technologies, and 10 percent will produce refuse-derived fuel. Private sector firms will own 42 percent of the planned facilities, and operate 74 percent.

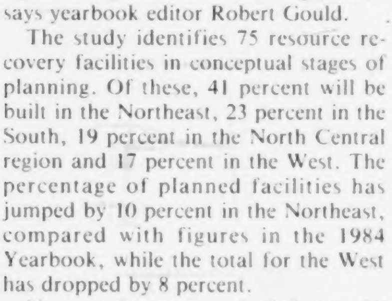
Facility Status By Type of Process

(From the 1986-87 Resource Recovery Yearbook)

	Type of Process			
Status	Mass Burning (except modular)	Mass Burning, Modular	RDF (all technologies)	All Facilities
Advanced Planning	53.2%*	20.6%	37.0%	37.1% (72)
Construction	17.7	11.1	8.7	12.9 (25)
Shakedown, Operational	24.1	58.7	30.4	36.1 (70)
Shutdown (temporarily or permanently)	5.1	9.5	23.9	13.9 (27)
Total Percent (Total Number)	100.0 (79)	100.0 (63)	100.0 (46)	100.0 (194)

*Percentage of column.

Location of Plants By Region: All Facilities



The study shows that $2 billion will be spent to construct these facilities during the next six years, with as much as 18 million tons of refuse being processed.

For advanced-planned and existing projects, 37 percent are located in the Northeast, 33 percent in the South, 16 percent in the West and 15 percent in North Central. While the South has the highest number of existing facilities at 43 percent, compared to the Northeast's 30 percent, the number of advanced-planned and existing facilities is increasing in the Northeast and West, compared to 1984 figures.

Nationwide, resource recovery projects in all stages of development are located in 44 states, with mass burning the prevalent technology. Showing a trend away from steam generation and toward electricity production, the study estimates the average facility will produce 25,537 kilowatts of electricity, and the total power produced nationally will rise from 538 megawatts today to 2,732 megawatts in 1992. The yearbook predicts 35 million tons of refuse per day will be processed by the 269 facilities reviewed, or approximately 26 percent of the municipal solid waste generated in the United States.

Other trends in the industry outlined in the yearbook include:

- the sample of facilities has expanded over 50 percent since 1984, indicating continued growth in the industry;
- materials recovery will become increasingly prevalent in future installations;
- air pollution control equipment has become more sophisticated across all technologies and sizes of facilities;
- unforeseen plant outages continue to occur and should be taken into account with respect to contingency planning; and
- private sector involvement, in terms of plant ownership and operation, has steadily increased.

For further information from the yearbook, contact Robert Gould or Eileen Berenyi at Governmental Advisory Associates Inc., 177 East 87th St., New York, N.Y. 10128, (212) 410-4165.

BRIEFS

China: A delegation of 46 U.S., Canadian and English solid waste management professionals traveled to the People's Republic of China recently as part of a program developed by Gershman, Brickner and Bratton Inc. of Washington, D.C., and sponsored by People-to-People International of Spokane, Wash., and the Chinese Environmental Protection Society. The delegation met with waste management officials in Beijing, Shanghai, Wuhan and Canton, where they made presentations on landfills, recovery methods, collection equipment and overall system operations. ☐

MUNICIPAL COST INDEXES

The **Municipal Cost Index** for October dropped almost half a point from September, falling to 339.4. The **Construction Cost Index** also posted a small drop, its first in several months. While the **Consumer Price Index** made a slight gain from September's figure, the **Producer Price Index** continued its slump.

In this month's marketbasket, prices in the fuel oil family continued to slide, with diesel fuel and fuel oil no. 2 each dropping almost 18 percent from last month's figures. In the last year, the fuel oils have dropped more than 50 percent cumulatively.

Other products showing losses in October were gypsum products, plumbing fixtures and lubricants.

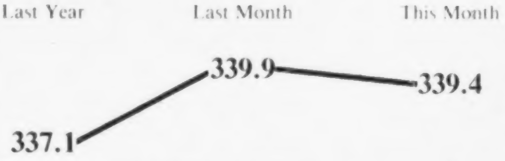
— Compiled by Joe Morris

THIS MONTH'S MARKETBASKET

	Current Index	Percent Change From: Last Month	Last Year
Air Conditioners	149.3	.1	1.3
Apparel	185.0	–.2	1.1
Asphalt Roofing	387.0	–.2	–5.7
Books	139.5	.6	5.4
Chemicals, Industrial	317.5	.4	–6.6
Coal	538.5	0	–2.1
Concrete Products	325.9	.2	1.4
Construction Machinery	366.9	0	1.3
Diesel Fuel	286.9	–17.7	–52.7
Electric Components	202.5	.7	2.5
Electric Lamps	347.5	.1	1.0
Electric Power	467.3	.6	1.1
Engines, I.C.	354.2	.3	2.0
Fans, Blowers	365.6	–.6	1.6
Fertilizers, Mixed	254.5	–.3	–1.5
Floor Coverings	194.0	–.5	1.8
Flow Instruments	236.9	.7	2.2
Footwear	261.4	.3	1.7
Foundry Products	363.5	–.3	0
Fuel Oil No. 2	308.9	–18.6	–49.3
Furniture	319.3	1.1	3.0
Gasoline	317.1	–19.2	–46.1
Generator Sets	353.8	1.2	.5
Glass	233.9	1.9	3.4
Glass Containers	399.5	0	3.3
Gypsum Products	347.7	–1.7	2.7
Hardware	306.5	0	–.2
Heating Equipment	268.6	–.4	3.3
HVAC Controls	128.0	.7	.4
LP Gas	353.5	–6.3	–31.5
Lubricants	369.4	–1.0	2.5
Lumber	316.5	1.6	3.5
Metal Fabrications	316.0	.1	.4
Millwork	321.6	.3	2.6
Motor Vehicle Parts	358.4	0	1.0
Mowers	263.9	0	.8
Natural Gas	1194.1	–.5	–14.6
Office Machines	154.2	–.1	–.3
Paint	282.4	.4	2.0
Paper	305.6	.4	.6
Passenger Cars	233.9	.4	2.2
Plumbing Fixtures	323.8	–.1	3.5
Plywood	236.2	.4	–.2
Portland Cement	350.5	–.8	–2.8
Residual Fuel	434.7	–13.0	–52.1
Sand, Gravel	318.9	.3	2.9
Sanitary Papers	383.1	–.1	1.7
Soaps, Detergents	274.0	0	.2
Sporting Goods	206.4	.8	1.4
Steel Mill Products	349.2	0	–4.6
Struc. Clay Products	308.7	–.2	4.0
Switchgear	285.3	–.5	1.2
Tires, Tubes	233.5	–.8	–1.8
Transformers	232.1	–.2	0
Trucks	347.4	1.3	4.2
Valves	106.9	.3	1.8
Wire, Cable	205.6	–.4	.6
Wiring Devices	375.6	.6	3.8

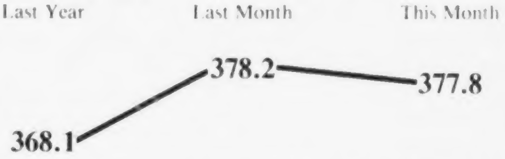
At-A-Glance Changes

MUNICIPAL COST INDEX



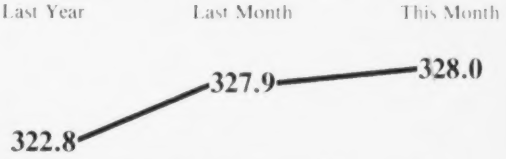
Percent Change From Last: Month **–.1** Year **.7**

CONSTRUCTION COST INDEX



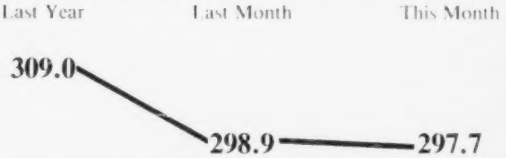
Percent Change From Last: Month **–.1** Year **2.6**

CONSUMER PRICE INDEX (BLS)



Percent Change From Last: Month **.03** Year **1.6**

PRODUCER PRICE INDEX (BLS)



Percent Change From Last: Month **–.4** Year **–3.7**

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year
Receipts	608.4B	2.6	8.4
Federal Grants	106.1B	2.5	7.9
Durable Purchases	22.4B	2.3	9.3
Consumables	36.8B	–4.9	–4.2
Services	371.9B	1.8	7.8
Structures	61.4B	11.6	13.3
Salaries, Wages	297.7B	1.9	7.2
Surplus	70.0B	12.0	6.7
Employment	13.784M	–.2	2.2